THE TROPHIC STATUS OF NEARSHORE WATERS IN SOUTHERN LAKE HURON AT THREE ONTARIO WATER SUPPLY INTAKES 1976 - 1981

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Ontario
Ministry of the Environment

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1976 - 1981

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PREFACE

Phytoplankton records showing algal density and composition are part of the routine operations at three Ministry of the Environment water treatment facilities on Lake Huron. At the request of the Surveillance Workgroup, International Joint Commission, additional chemical parameters were measured at these locations to complement the phytoplankton data. The main goal of this expanded programme was to monitor the nearshore water quality over a long term (ten years or more) with emphasis on selected trophic state indices. We are currently in year eight of this study.

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ABSTRACT

Phytoplankton data have been collected since 1964 and complementary chemical data have been collected since 1976 at weekly intervals from three waterworks along the southeastern shoreline of Lake Huron. Phytoplankton biomass levels (measured as A.S.U./mL) were 627 A.S.U./mL (17 year mean), 654 A.S.U./mL (14 year mean) and 570 A.S.U./mL (12 year mean) at Goderich, Grand Bend and Lambton, respectively. The phytoplankton community was dominated by the Bacillariophyceae (diatoms) during most of the year with a late summer development of Cyanophyceae (blue-greens) and Chlorophyceae (greens). Biomass was usually at a seasonal minimum in late winter and early spring at Goderich and Grand Bend followed by a rise to a seasonal maximum in the early summer of most years. At Lambton, on the other hand, the seasonal maximum usually occurred in early summer followed by a late summer minimum.

There does not appear to be any statistically significant trend with time for any of the chemical parameters except for nitrate-N at Goderich and Lambton and for silica at Lambton. There has been a steady increase in nitrate-N since 1976 with a distinct seasonal peak in the spring at each location. Silica concentrations have shown a distinct annual cyclic pattern but have increased only slightly at the Lambton location since 1976.

Chloride and conductivity concentrations were the most stable throughout the study period and were only slightly greater than values observed in the main lake. Springtime maxima for these two parameters at Goderich reflect the influence of the spring run-off

from the Maitland River watershed. Regression analyses indicated that there was no correlation between total P and phytoplankton and that phytoplankton and silica and phytoplankton and nitrate-N were significantly correlated at Goderich only.

Nutrient concentrations at Goderich and Grand Bend were greater than concentrations at the Lambton location. The former two locations were representative of nearshore conditions while concentrations at Lambton were probably more representative of the open lake. However, concentrations at all three intake sites were higher than surface water data collected from this part of Lake Huron during summer by conventional shipboard sampling methods. Reasons for these higher concentrations at the intake location may be accounted for by the fact that samples were collected on a frequent year-round basis despite the severity of weather. Samples were collected from a fixed deep water source and include all seasonal minimum and maximum periods (i.e. spring run-off periods which showed higher concentrations especially for total P and nitrate).

The data presented here are supportive of the historical limnological data available for southern Lake Huron. The value of frequent sample collection afforded by the use of water supply intakes (especially during winter and early spring) as a means of monitoring Great Lakes nearshore water quality is discussed briefly. The continuation of this programme will provide useful information, particularly for long term trend analyses.

INTRODUCTION

Phytoplankton records showing algal density and composition are part of the routine operations at many Ontario municipal water treatment facilities on the Great Lakes. These records and associated in-plant chemical data allow the experienced operator to anticipate treatment problems created by changes in algal populations. Facilities at three locations in southern Lake Huron, namely Goderich, Grand Bend (Lake Huron Water Supply System) and Sarnia (Lambton Area Water System) have been participants in a provincial phytoplankton monitoring programme established by the Ontario Water Resources Commission in 1967 (Michalski 1968).

Previous studies by Davis (1964) and Schenk and Thompson (1965) have shown the usefulness of these long term data in providing evidence for the rapid eutrophication of Lakes Erie and Ontario in waterworks records from Cleveland and Toronto. Studies by Nicholls et al. (1980) and Nicholls (1981) have used data collected at waterworks intakes on the Ontario side of the Great Lakes to monitor recent changes in the nearshore quality of Lakes Ontario and Erie. From these studies it was learned that water intakes could be a cost-effective means of measuring nearshore Great Lakes water quality on a year-round basis. In 1976 some of the provincial facilities still participating in the provincial phytoplankton monitoring programme were requested to expand their sample collections to allow for the measurement of an additional eleven chemical parameters to complement the phytoplankton data already being collected. The main goal of this expanded intake monitoring programme was to monitor the nearshore water quality over a long term with emphasis on selected trophic state indices such as phytoplankton, phosphorus, nitrogen, silica, chloride and conductivity.

METHODS

The three Lake Huron waterworks locations, intake depths and distances from shore are indicated in Figure 1. Weekly raw water samples are collected in the plant laboratory via a continuous flowing tap connected to the intake system at a point prior to chlorination. One litre samples for phytoplankton biomass estimates are concentrated and counted at the treatment plant by a qualified plant operator. Samples for chemical analyses are collected at the same time in 500 ml polystyrene containers and shipped the same day to the Ministry of the Environment laboratory in London, Ontario for analyses of total (unfiltered) P, soluble reactive P, ammonia-N, total Kjeldahl-N, nitrite-N, nitrate-N, chloride, conductivity and silica (unfiltered reactive silicate). A one litre sample of raw water stabilized with 1 ml of a 0.5% magnesium carbonate solution is forwarded to the Ministry of the Environment Laboratory in Toronto for chlorophyll a and b analyses. Chemical samples are analyzed according to the methods described in "Outlines of Analytical Methods", (Anon 1975), Laboratory Services Branch, Ministry of the Environment and its subsequent revisions.

During the period 1976-1981 methodology changes were of a minor nature and were implemented primarily to improve sample through-put. Inter-laboratory comparison studies were completed on samples submitted to the London laboratory for the PLUARG programme during 1978. For the above mentioned parameters the average bias between laboratories, on duplicate samples submitted over a period of one year was less than 2% (D. King, pers. comm.).

At Goderich the same operator has been responsible for phytoplankton analyses since 1964. At Grand Bend there is a continuous record beginning in 1968 whereas at the Lambton location phytoplankton analyses during 1966-1967 were performed by our own laboratory personnel. From 1968 to 1981 analyses were completed by

two waterworks operators with a gap in the records from 1972 to 1975 during construction of new facilities.

Samples collected for phytoplankton analyses at the three Lake Huron plants are now concentrated using the Utermohl sedimentation technique and Lugol's iodine solution for preservation. Prior to 1974 at the Lake Huron supply and prior to 1976 at Goderich and Lambton the Sedgewick-Rafter sand filtration technique for algae concentration was used. A one mL aliquot of the concentrate is examined by a trained operator at each location. Using compound microscopes and Sedgewick-Rafter counting chambers, samples are examined at 200X magnification to determine their biomass and taxonomy to the generic level.

The data have been summarized in several formats using an HP9825 desk-top computer. The raw data (weekly analyses) for twelve parameters with the annual minimum, maximum, mean, standard deviation (±1 S.D.) and number of samples are available as a single page print-out in long or short form (Appendices 1 and 2). These data have also been converted to monthly means (Appendix 3) and are available in graphical form (Figures 1 to 6).

RESULTS AND DISCUSSION

There has been a small decrease in total P over the period 1976 to 1980 with a return to 1976 levels in 1981 at Goderich and Grand Bend. The levels at Goderich, which may be influenced by shoreline proximity and periodic influences from the Maitland River were highest with annual means ranging from 0.028 mg/L to 0.055 mg/L total P. The total P values at Grand Bend were about 50% lower than those at Goderich and ranged from 0.018 to 0.026 mg/L whereas the total P values at Lambton were about one third the level of those at Goderich and ranged from 0.014 mg/L to 0.007 mg/L (Figure 2). These values at Lambton probably reflect a mix of the open lake and near-shore waters of southern Lake Huron as the sampling point is situated at the outlet of the lake.

The highest concentrations of total P occurred most frequently in late winter or early spring followed by a summer depletion at all three locations. There were two exceptions to this pattern at Lambton, when in 1978 and 1980 the seasonal high occurred in June and December respectively.

In a report on the waters of Lake Huron and Lake Superior prepared by the Upper Lakes Reference Group (Anon 1977) Lake Huron was divided into eight main lake segments and nine nearshore segments. The data collected for this study lie in the nearshore segments A and B on the southeast shore of Lake Huron (Fig. 1). Lake Huron was considered to be in an oligotrophic state except for some localized nearshore areas (including segments A and B) which showed signs of seasonal mesotrophic influences. Nutrient discharges from the Maitland, Saugeen and the Ausable rivers provided seasonal variability that influenced this shift toward mesotrophy. The total input of conservative elements to the main lake also favoured this mesotrophic influence.

Phosphorus is one of the major nutrients controlling phytoplankton growth in the Great Lakes (Lin and Schelske 1981). Diatom growth will flourish with the addition of phosphorus provided silica levels are maintained. The relationship between phosphorus levels and phytoplankton growth allows total P to be used as an indicator of the trophic status of water. Total P concentrations less than 0.01 mg/L should not cause algal blooms to develop. If levels exceed 0.02 mg/L however, then enrichment problems could develop. P concentrations for nearshore segments A and B of Lake Huron were less than 0.02 mg/L in 1974 (Anon 1977).

At two of the three waterworks locations described in this study nitrate-N has shown a definite upward trend during the period 1976 to 1981 (Figure 3). As with total P, values fell within ranges that were highest at Goderich and lowest at Lambton. Nitrate-N values at Goderich increased significantly ($r = 0.872$; $\underline{P} < 0.05$) from an annual mean of 0.57 mg/L in 1976 to 0.99 mg/L in 1981. At Grand

Bend there was an apparent but not significant increase ($r = .796$; $P < 0.05$) at levels that were approximately 50% lower than Goderich ranging from 0.25 mg/L in 1976 to 0.45 mg/L in 1981. At Lambton, nitrate-N showed an upward trend which was significantly different with time ($r = 0.839$; $P < 0.05$) from 1976 to 1979 and then remained constant to the end of 1981. With values at about one third those observed at Goderich they ranged from 0.21 mg/L in 1976 to 0.28 mg/L nitrate-N in 1981.

There was a distinct seasonal peak in March or April of each year at all locations with a rapid decline to a seasonal minimum in June and July at Goderich from 1976 to 1978. The seasonal minimum shifted to August and September in 1979 at Goderich and occurred during this period each year at Grand Bend. At Lambton the seasonal minimum for nitrate-N occurred even later in the year (i.e. from August to October).

Historically, nitrogen levels have increased with time through the Great Lakes. With the implementation of P removal programmes during the 1970's there has been a more noticeable increase in nitrogen levels. In segments A and B of southeast Lake Huron (Anon 1977) annual mean total nitrogen concentrations ranged from 0.49 to 0.65 mg/L in 1974 Nitrate values for central Lake Huron as reported by C.C.I.W. from 1968 to 1972 ranged from 0.25 to 0.27 mg/L (Anon 1976).

Conductivity and chloride are used together to measure the salinification of a lake system. These measurements are used to calculate the total dissolved solids which is an approximate measure of the total "impurities" in the lake. Chloride is a non-reactive conservative substance which reflects the influence of human activity on a water basin. Data assembled since 1967 in the open waters of Lake Huron indicate chloride concentrations dropped from an annual mean of 7.04 mg/L in 1970 to 5.23 mg/L in 1980 (Fraser 1981).

Chloride concentrations increase as they move down through the Great Lakes system. However, there is a decline in the chloride levels as you move down the lake from Goderich, where the six year

(1976-81) average concentration for chloride is 9.6 mg/L. At Grand Bend the six year mean chloride concentration is 6.4 mg/L and at Lambton it is 5.9 mg/L (Figure 4). The seasonal fluctuation is minimal at Grand Bend and Lambton whereas at Goderich there is a spring maximum which probaby shows the influence of the spring run-off from the Maitland River. Maximum values (monthly mean) were observed at Goderich in February 1976 (22.8 mg/L), Grand Bend in March 1977 (9.6 mg/L) and at Lambton in February 1981 (8.8 mg/L).

Conductivity was not measured in 1976 at the three waterworks locations in this study. Data collected from mid-1977 to the end of 1981 indicated that this parameter was the least variable during the study period (Figure 5). Again the influence of the Maitland River at Goderich provided some fluctuation in conductivity with a maximum range occurring in 1978 (207-510 µS/cm). The annual means at this location ranged from 255-275 µS/cm. At Grand Bend and Lambton conductivity values were even more stable with annual mean values ranging from 217-220 µS/cm at Grand Bend and 207-211 µS/cm at Lambton. As at Goderich, the greatest fluctuation in conductivity levels occurred in 1978 at both the Grand Bend and Lambton locations. Conductivity data gathered by Fraser (Fraser 1981) indicate that main lake values for this parameter ranged from 206 µS/cm in 1970 to 174 µS/cm in 1976. In 1980 main lake values averaged 195 µS/cm.

Silicon concentrations (measured as the soluble reactive silicate ion -mg Si/L) have been analyzed at all three waterworks locations since 1976. There is a distinct annual cyclic pattern at all three locations centered on a mid-winter maximum and a mid-summer minimum (Figure 6). The six year annual mean (0.71 mg Si/L) at Goderich was 18% higher than at Grand Bend (0.60 mg Si/L) and 34% higher than at Lambton where the six year annual mean was 0.53 mg Si/L. The annual mean value for silica ranged from 0.63 to 0.88 mg Si/L at Goderich, from 0.48 to 0.77 mg Si/L at Grand Bend and from 0.49 to 0.57 mg Si/L at Lambton.

The source of silicate in Lake Huron waters is the geological deposits in the drainage basin and natural inputs from Lakes

Superior and Michigan. Silicon is an essential nutrient for diatoms, the most common algae in Lake Huron. Reactive silicate (measured as mg SiO_2/L in 1974) in the nearshore segments A and B of southeastern Lake Huron was between 0.8 and 0.9 mg/L (Anon 1977).

Phytoplankton records go back to 1964, 1968 and 1966 at Goderich, Grand Bend and Lambton, respectively. The data were arbitrarily divided to pre- and post-1976 at which time the waterworks monitoring programme was enhanced to include chemical analyses. At Goderich the annual mean value for phytoplankton biomass for the eleven year period from 1965-1975 averaged 759 A.S.U./mL (1 Areal Standard Unit = 400 square microns). For the last six year period (1976-1981) this value decreased by 50 to an average value of 385 A.S.U./mL. At Grand Bend the eight year mean (1968-1975) was 586 A.S.U./mL and increased by 21 to an average annual mean of 746 A.S.U./mL for the six year period 1976-1981. At Lambton phytoplankton records for the six year period from 1966 to 1971 indicated an average annual mean of 663 A.S.U./mL which decreased by approximately 28 to 476 A.S.U./mL for the period 1976 to 1981. T-tests, showed that the average phytoplankton biomass for pre-vs. post 1976 data were not significantly different ($P < 0.05$) at any of the three locations since the start of data collections. However, regression analyses indicated that there was a significant downward trend ($r = .686$; $P < 0.01$) at Goderich from 1965 to 1981. As no computerized plots are available for the data prior to 1976 they have been summarized in Table 1 as annual means (A.S.U./mL) for the period 1965 to 1981, where available.

Seasonally, the algal population at Goderich was at a minimum during February of most years and showed maximum values from May through August (Figure 7). At Grand Bend, the seasonal minimum occurred from January through March of most years while the seasonal maximum was somewhat earlier than at Goderich and usually occurred during May-June of each year. The seasonal pattern at Lambton was somewhat different than at Goderich or Grand Bend in that the minimum level of phytoplankton biomass occurred during August and September for most years from 1976 to 1981. The one exception to this was in 1979 when the seasonal low occurred in February.

Maximum values of phytoplankton were generally observed during May-June of each year except in 1981 when there was a fall maximum (Figure 7).

For comparison purposes a detailed examination of the dominant algal forms was made for the years 1969 and 1981 at all three locations. The diatoms were by far the most abundant forms present throughout the year. At Goderich in 1969 the diatoms Fragilaria, Tabellaria, Synedra and Diatoma represented 75-100% of the community from January to May. From August to December Fragilaria was the single dominant comprising 90-100%of the biomass. In 1981, Fragilaria was the dominant alga from February to mid-April (75-95%of the biomass) and from October to the end of December (80-90% of the biomass), while Tabellaria and Melosira were co-dominant with Fragilaria from May to August, 1981. For a very short period in June, 1981 the filamentous blue-green, Oscillatoria sp. represented approximately 50% of the biomass.

At Grand Bend, Fragilaria, Tabellaria and Melosira accounted for 85-95% of the biomass during the early part of 1969. During July and August, Tabellaria was the dominant form while Fragilaria was again the lone dominant during the fall months at 70-90% of the biomass. In 1981, there was a noticeable shift in the dominant forms present at Grand Bend. During January to March Tabellaria was the most abundant diatom present with Rhizosolenia and Fragilaria acting as co-dominants during March. However, these diatoms represented only 50-85% of the biomass at this time and the blue-green Microcystis accounted for up to 50% of the biomass in February. In April the chrysophyte Dinobryon was present for a short period as a sub-dominant to the diatom Tabellaria. During April, May, June, Tabellaria and Fragilaria were the dominant forms present with the occasional appearance of Rhizosolenia, Melosira and Asterionella as other diatoms comprising 75-90% of the biomass. From mid-July to the end of October the blue-greens as a group were responsible for up to 50% of the biomass. Dinobryon represented one-third of the population for a short period in August. During

November and December Fragilaria supported by Rhizosolenia, Tabellaria and Asterionella accounted for 60 to 90% of the biomass at Grand Bend.

In 1969 the algae population at Lambton was dominated by the diatom Tabellaria from January to July with the occasional appearance of Fragilaria, Synedra and Rhizosolenia as co-dominant forms. They represented 70-90% of the biomass during this time. From late July to the end of October the Chlorophyceae made up 35-80% of the biomass. For the month of October the blue-greens were co-dominant with the greens. November and December, 1969 saw a return of the diatoms Fragilaria, Rhizosolenia, Tabellaria and Synedra present at levels representing 55-75% of the total biomass. In 1981 at Lambton, the diatoms Tabellaria and Fragilaria dominated the phytoplankton community throughout the entire year except for a short period during July and August when the biomass levels were very low and no single alga or algal group dominated.

Regression analyses at each of the three waterworks locations indicated that there was no significant correlation ($P < 0.05$) between monthly mean total P and phytoplankton biomass over the 6-year period 1976-1981. Phytoplankton and silica were significantly correlated ($r = 0.378$; $P < 0.05$); phytoplankton and nitrate-N were significantly correlated ($r = 0.261$; $P < 0.05$) at the Goderich location only. Again, this was probably a reflection of the influence of the spring run-off and the nearshore location of the Goderich plant.

Previous reports have indicated that phytoplankton levels in the main part of Lake Huron are indicative of oligotrophic conditions with an overall increase in abundance from north to south (Munawar and Munawar 1981). In project report D-5 (Anon 1977) it was indicated that phytoplankton standing stocks showed a 3 to 5 fold variation in annual averages at Goderich and Grand Bend and were dominated by diatoms throughout the year. Moderately high algal populations characteristic of mesotrophic lakes occurred in the Ontario nearshore waters of southeastern Lake Huron during late summer and early fall periods with chrysophytes, blue-green and

green algae contributing to the flora (Anon 1977). Stoermer et al. (1977) did an in-depth study of the phytoplankton assemblages in southern Lake Huron in 1974. His findings were similar to those reported above indicating that the diatoms were the dominant group, there was an increase in biomass southward down the lake and there was a seasonal influence on the nearshore Canadian waters by nutrient inputs that caused an increased algal population of types that tended to reflect mesotrophy. He found that diatoms, in segment 8 (the area including Goderich and Grand Bend) of Lake Huron comprised an average of 67% of the algal biomass. During late April-early May, diatoms comprised 83% of the population and dropped to 45 during early October when blue-greens and greens were more prominent.

With the high biomass of diatoms in the spring, silica concentration probably becomes a limiting factor in southern Lake Huron leaving room for more eutrophic forms to develop later in the season. Stoermer found that the enriched algal populations of Saginaw Bay were carried out into the main body of Lake Huron and that some of this nutrient-rich population reached stations along the southeast Canadian coast. The diatom population is lost from the water quite rapidly but some of the blue-greens are transported great distances. This evidence supports our findings that seasonal populations of blue-green are most noticeable in the late summer and early fall when silica levels are at a minimum.

Nutrient concentrations at Goderich and Grand Bend were greater than concentrations at the Lambton location. The former two locations were more representative of nearshore conditions while concentrations at Lambton were probably measuring conditions more representative of the open lake. However, concentrations at all three intake sites were higher than surface water data collected from this part of Lake Huron during summer by conventional shipboard sampling methods (Jackson et al. in prep.). Reasons for these higher concentrations at the intake location may be accounted for by the fact that samples were collected on a frequent year-round basis

despite the severity of weather. Samples were collected from a fixed deep water sources and include seasonal maximum periods (i.e. spring run-off periods which showed higher concentrations especially for total P and nitrate).

Municipal water supply intakes provide an easily obtainable source of nearshore water for frequent analyses of nutrients and other trophic status parameters. While average concenrations of some constituents (especially inorganic N) may be higher than those from "conventional" summer-only surveys, there are clear advantages for time trend analysis for including data collected during late fall, winter and early spring periods. For example, spring and early summer algal densities depend greatly on nutrient supply during late winter and early spring. Consequently, the important effects of a change in nutrient supply can only be properly assessed by a sampling schedule which includes the late winter and early spring periods. Because these times of the year are most incompatible with conventional sampling by boat, municipal water intakes provide a cost-effective alternative.

REFERENCES

ANON. 1975. Outlines of Analytical Methods. A guide to the occurrence, significance, sampling and analysis of chemical and microbial parameters in water. Ontario Ministry of the Environment, Laboratory Services Branch, Toronto, Ontario.

ANON. 1976. Upper Lakes Reference Group. The Waters of Lake Huron and Lake Superior. Vol. I. Summary and Recommendations. Report to the International Joint Commission, Windsor, Ontario.

ANON. 1977. Upper Lakes Reference Group. The Waters of Lake Huron and Lake Superior. Vol. II (Part A). Lake Huron, Georgian Bay, and the North Channel. Report to the International Joint Commission, Windsor, Ontario.

DAVIS, C.C. 1964. Evidence for the eutrophication of Lake Erie from phytoplankton records. Limnol. Oceanogr. 9:275-283.

FRASER, A.S. 1981. Salt in the Great Lakes. Environment Canada, National Water Research Institute, Burlington, Ontario.

KING, D. 1983. Personal Communication from D. King to G. Hopkins, Laboratory Services Branch, Ontario Ministry of the Environment, Toronto, Ontario.

LIN, C.K., and C.L. SCHELSKE. 1981. Seasonal variation of potential nutrient limitation to chlorophyll production in southern Lake Huron. Can. J. Fish. Aquat. Sci. 38:1-9.

MUNAWAR, M., and MUNAWAR I.F. 1981. A general comparison of the taxonomic composition and size analyses of the phytoplankton of the North American Great Lakes. Mit. Int. Ver. Limnol. 21:1695-1716.

JACKSON, M.B., L.K. NAKAMOTO and S.L. WONG (in prep.). The Nearshore Water Quality of Lake Huron - 1980. Water Resources Branch, Ontario Ministry of the Environment, Toronto, Ontario.

NICHOLLS, K.H., D.R. STANDEN, and G.J. HOPKINS. 1980. Recent changes in the nearshore phytoplankton of Lake Erie's western basin at Kingsville, Ontario. J. Great Lakes Res. 6(2): 146-153.

NICHOLLS, K.H. 1981. Recent changes in the phytoplankton of Lakes Erie and Ontario. Bull. Buffalo Soc. Nat. Sci. 25(4):41-88.

SCHENK, C.F., and R.E. THOMPSON. 1965. Long term changes in water chemistry and abundance of plankton at a single sampling location in Lake Ontario. Univ. Mich., Great Lakes Res. Div. Pub. 13:197-208.

STOERMER, E.F., and R.G. KREIS, Jr. 1980. Phytoplankton Composition and Abundance in Southern Lake Huron, Great Lakes Research Division, Univ. Mich., E.P.A. report 600/3-80-061. Duluth, Minnesota.

Captions for report Figures 1-6, Lake Huron Nearshore Water Quality. 1976-1981.

Figure 1: Location of three waterworks on the southeastern shore of Lake Huron showing the length of intake and depth in metres and nearshore segmentation A, B and C (reported by U.G.L. Ref. Group (Annon 1977)).

Figure 2: Total phosphorus concentrations (mg P/L). Monthly means (± 1 S.D.) of raw water collected weekly from Lake Huron at waterworks intakes located at Goderich, Grand Bend (Lake Huron W.S.S.) and Sarnia (Lambton Area W.S.S.) from 1976 to 1981. Dotted lines indicate where the S.D. is off scale. Note scale change for Goderich data.

Figure 3: Nitrate-nitrogen concentrations (mg N/L). Monthly means. (± 1 S.D.) of raw water collected weekly from Lake Huron at waterworks intakes located at Goderich, Grand Bend (Lake Huron W.S.S.) and Sarnia (Lambton Area W.S.S.) from 1976 to 1981. Dotted lines indicate where the S.D. is off scale.

Figure 4: Chloride concentrations (mg Cl/L). Monthly means (± 1 S.D.) of raw water collected weekly from Lake Huron at waterworks intakes located at Goderich, Grand Bend (Lake Huron W.S.S.) and Sarnia (Lambton Area W.S.S.) from 1976 to 1981. Dotted lines indicate where the S.D. is off scale.

Figure 5: Conductivity levels (micro Siemens/cm). Monthly means (± 1 S.D.) of raw water collected weekly from Lake Huron at waterworks intakes located at Goderich, Grand Bend (Lake Huron W.S.S.) and Sarnia (Lambton Area W.S.S.) from 1976 to 1981. Dotted lines indicate where the S.D. is off scale.

Figure 6: Silicon concentrations (Soluble reactive silicates - mg Si/L). Monthly means (± 1 S.D.) of raw water collected weekly from Lake Huron at waterworks intakes located at Goderich, Grand Bend (Lake Huron W.S.S.) and Sarnia (Lambton Area W.S.S.) from 1976 to 1981. Dotted lines indicate where the S.D. is off scale.

Figure 7: Phytoplankton biomass (Areal Standard Units per mL). Monthly means (± 1 S.D.) of raw water collected weekly from Lake Huron at waterworks intakes located at Goderich, Grand Bend (Lake Huron W.S.S.) and Sarnia (Lambton Area W.S.S.) from 1976 to 1981. Dotted lines indicate where the S.D. is off scale.

Table 1: Annual mean phytoplankton biomass of raw water samples at Goderich, Grand Bend and Sarnia waterworks intakes 1965-1981. All values expressed as Areal Standard Units per mL.

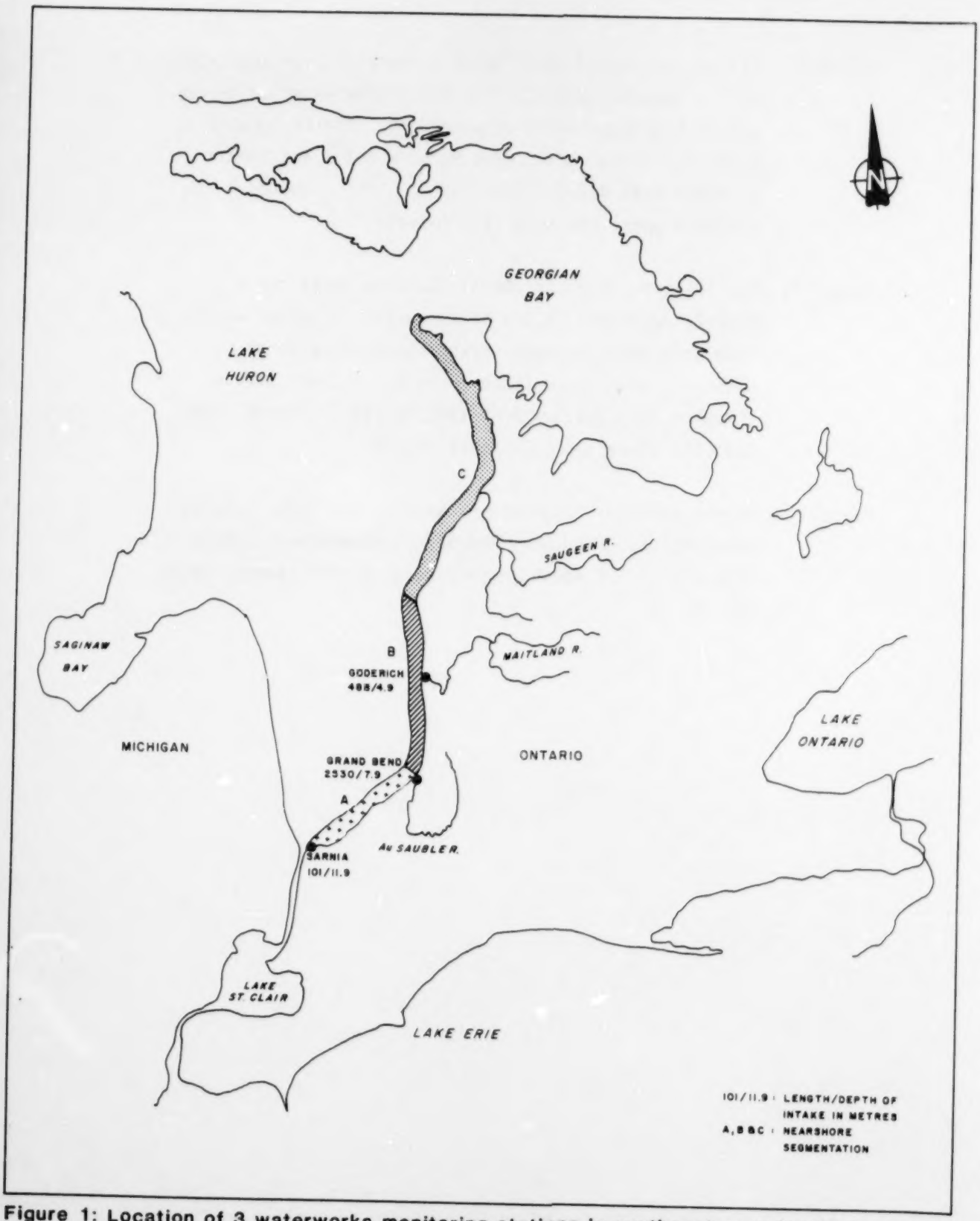

Figure 1: Location of 3 waterworks monitoring stations in southeastern Lake Huron and nearshore segmentation as reported in U.G.L. Ref. Group (Anon 1977).

FIGURE 2

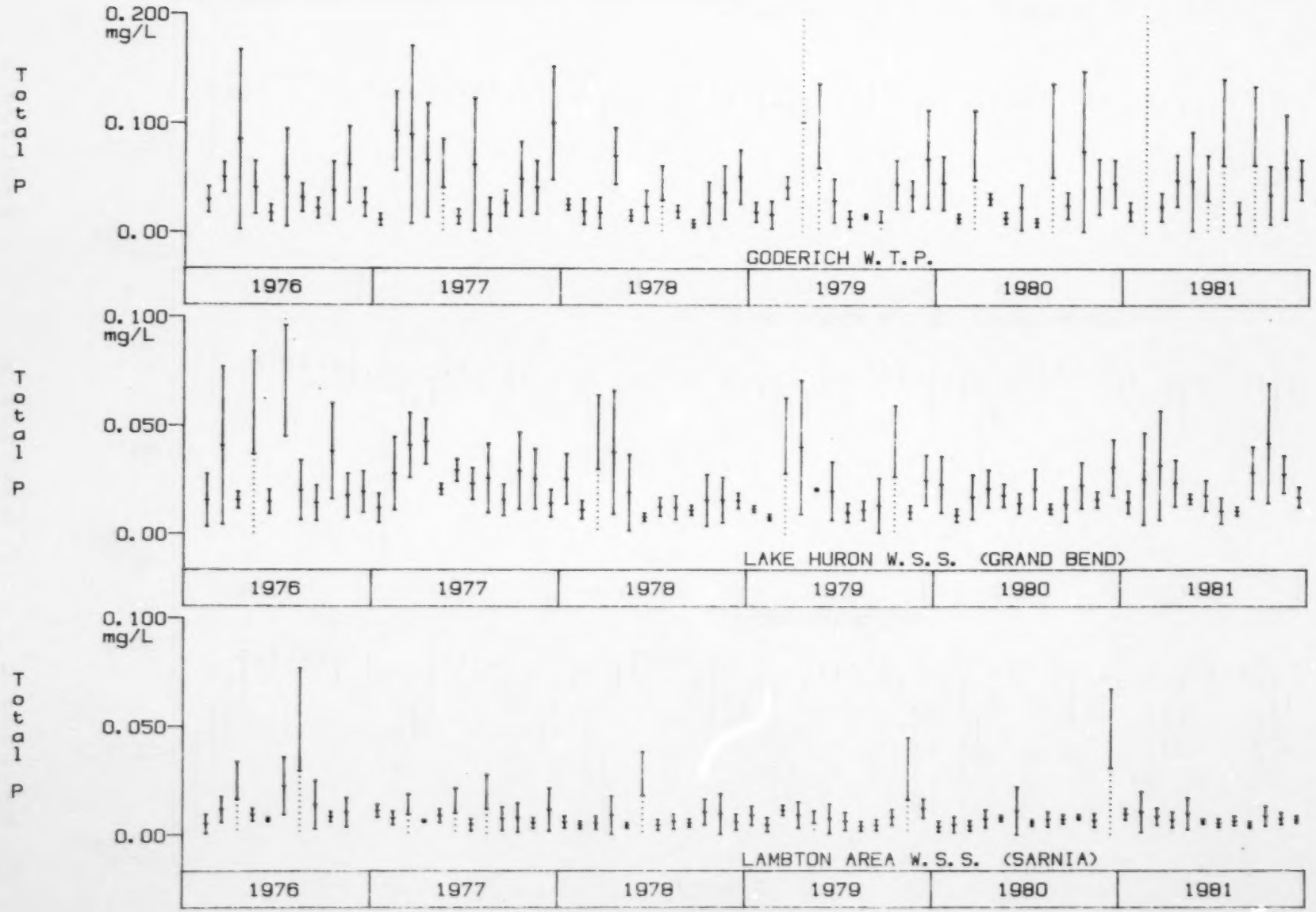
Total P
0.200
mg/L
0.100
0.00
GODERICH W.T.P.
1976
1977
1978
1979
1980
1981
Total P
0.100
mg/L
0.050
0.00
LAKE HURON W.S.S. (GRAND BEND)
1976
1977
1978
1979
1980
1981
Total P
0.100
mg/L
0.050
0.00
LAMBTON AREA W.S.S. (SARNIA)
1976
1977
1978
1979
1980
1981

FIGURE 3

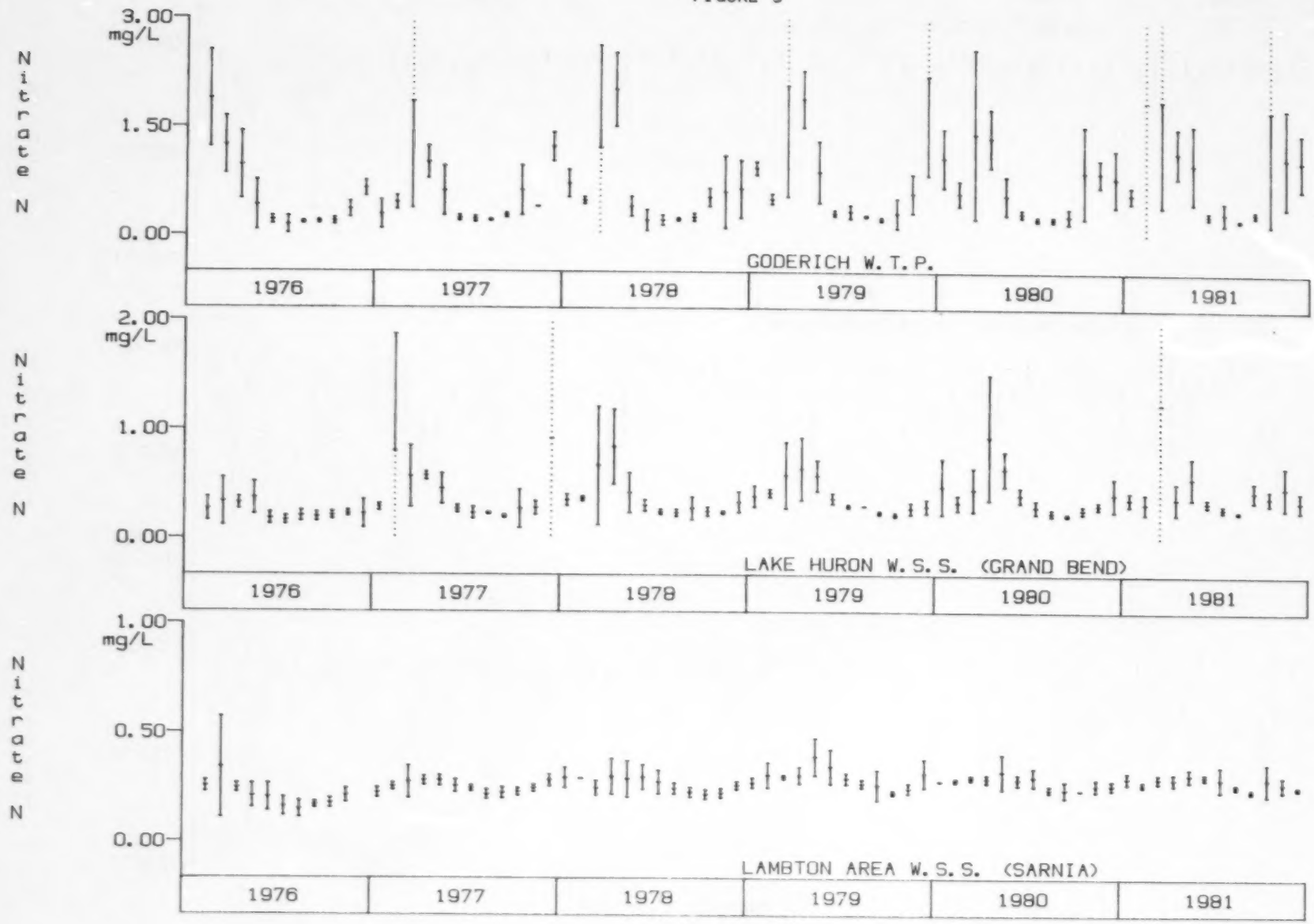
Nitrate N
3.00
mg/L
1.50
0.00
GODERICH W.T.P.
1976
1977
1978
1979
1980
1981
Nitrate N
2.00
mg/L
1.00
0.00
LAKE HURON W.S.S. (GRAND BEND)
1976
1977
1978
1979
1980
1981
Nitrate N
1.00
mg/L
0.50
0.00
LAMBTON AREA W.S.S. (SARNIA)
1976
1977
1978
1979
1980
1981

FIGURE 4

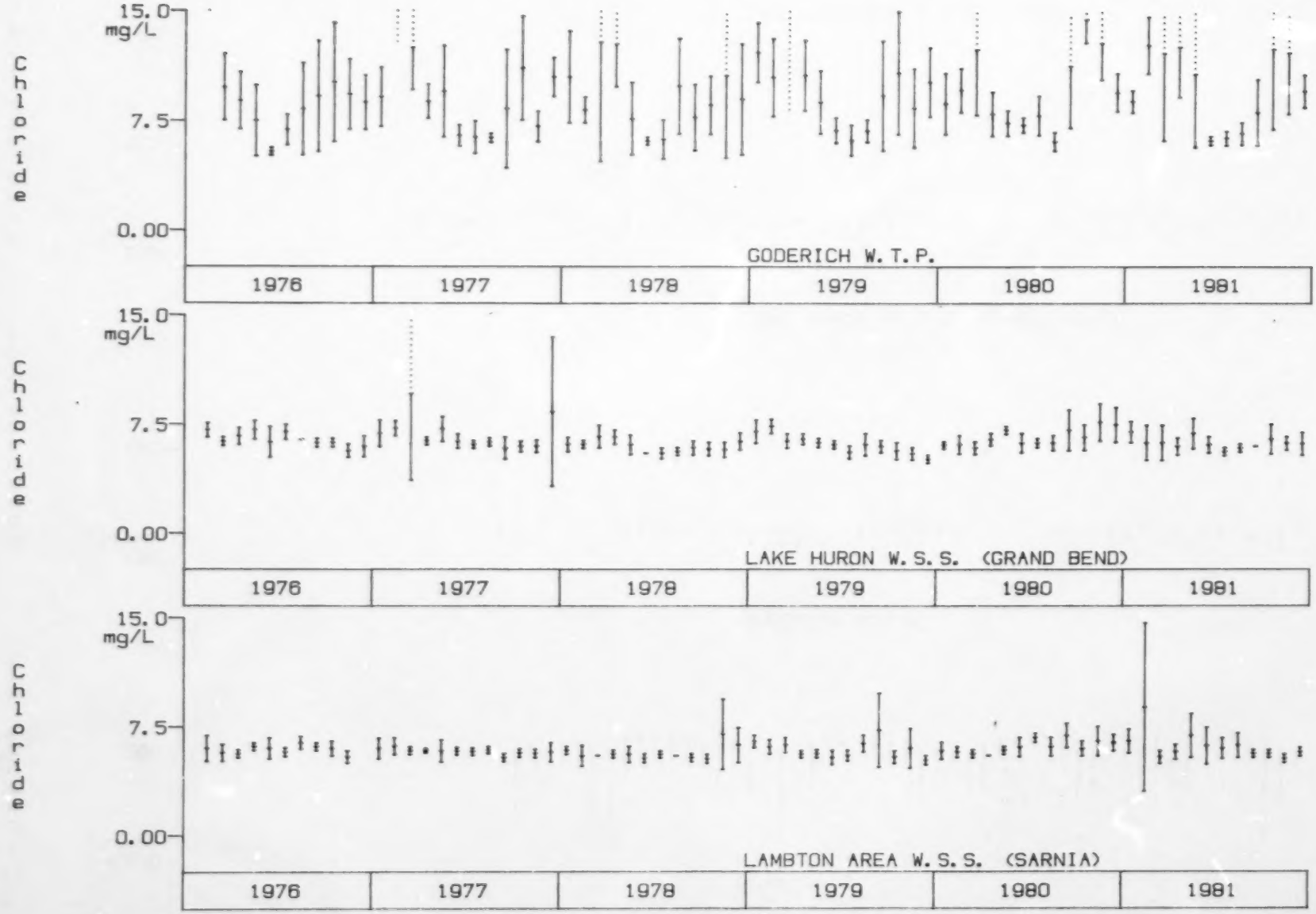
Chloride
15.0 mg/L
7.5
0.00
GODERICH W.T.P.
1976
1977
1978
1979
1980
1981
Chloride
15.0 mg/L
7.5
0.00
LAKE HURON W.S.S. (GRAND BEND)
1976
1977
1978
1979
1980
1981
Chloride
15.0 mg/L
7.5
0.00
LAMBTON AREA W.S.S. (SARNIA)
1976
1977
1978
1979
1980
1981

FIGURE 5

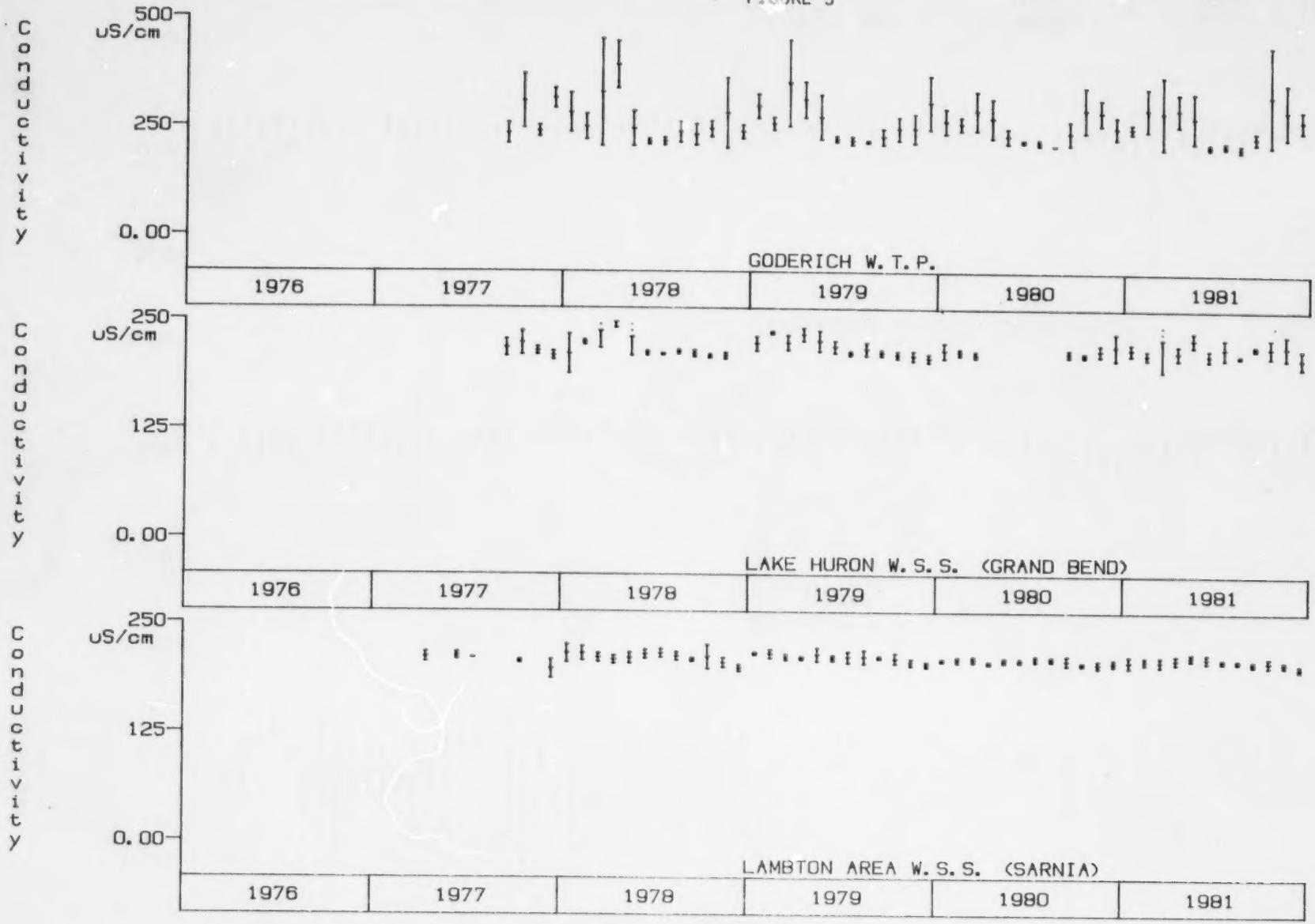
Conductivity
500
uS/cm
250
0.00
GODERICH W.T.P.
1976
1977
1978
1979
1980
1981
Conductivity
250
uS/cm
125
0.00
LAKE HURON W.S.S. (GRAND BEND)
1976
1977
1978
1979
1980
1981
Conductivity
250
uS/cm
125
0.00
LAMBTON AREA W.S.S. (SARNIA)
1976
1977
1978
1979
1980
1981

FIGURE 6

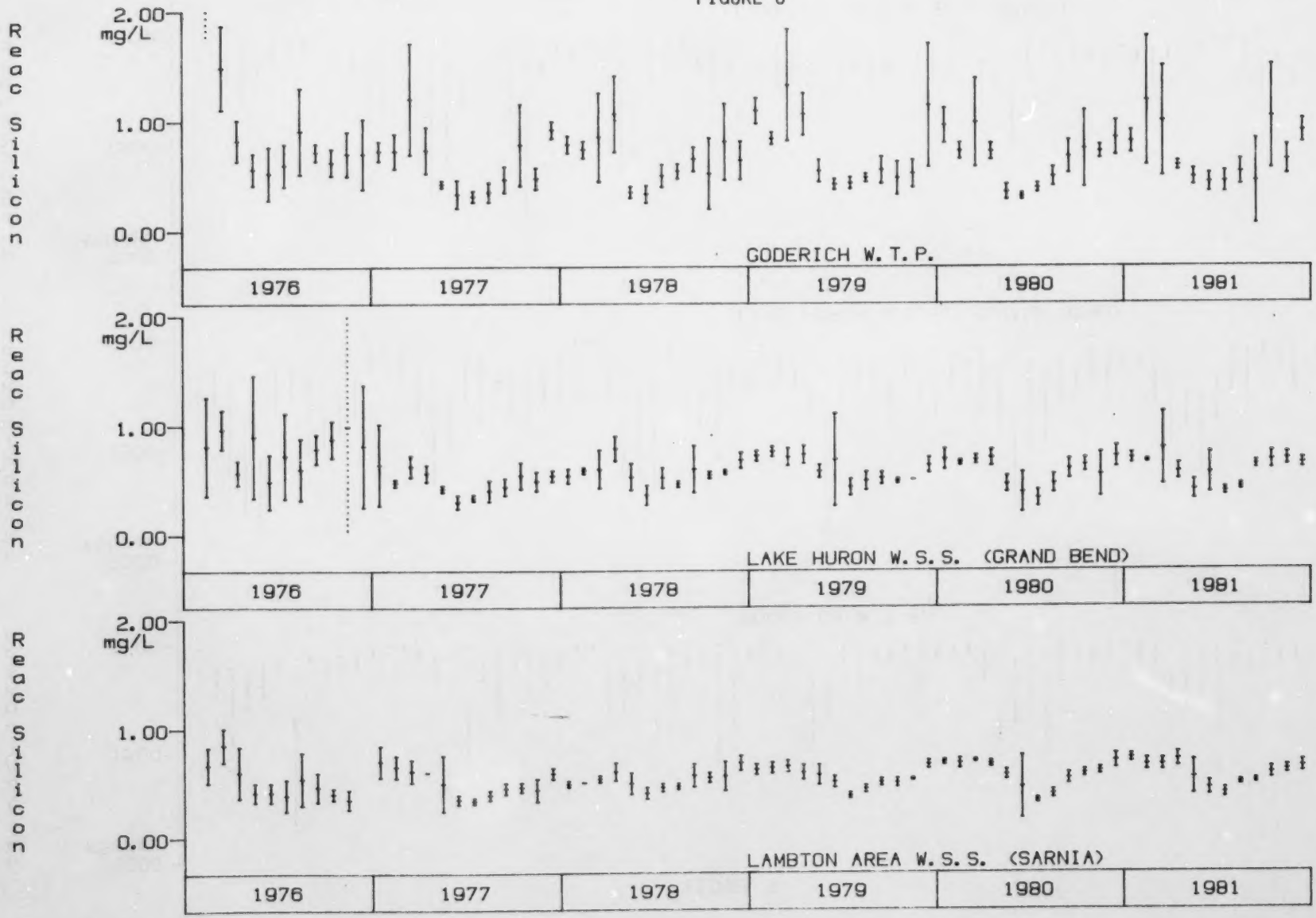
Reac Silicon
2.00
mg/L
1.00
0.00
GODERICH W.T.P.
1976
1977
1978
1979
1980
1981
Reac Silicon
2.00
mg/L
1.00
0.00
LAKE HURON W.S.S. (GRAND BEND)
1976
1977
1978
1979
1980
1981
Reac Silicon
2.00
mg/L
1.00
0.00
LAMBTON AREA W.S.S. (SARNIA)
1976
1977
1978
1979
1980
1981

FIGURE 7

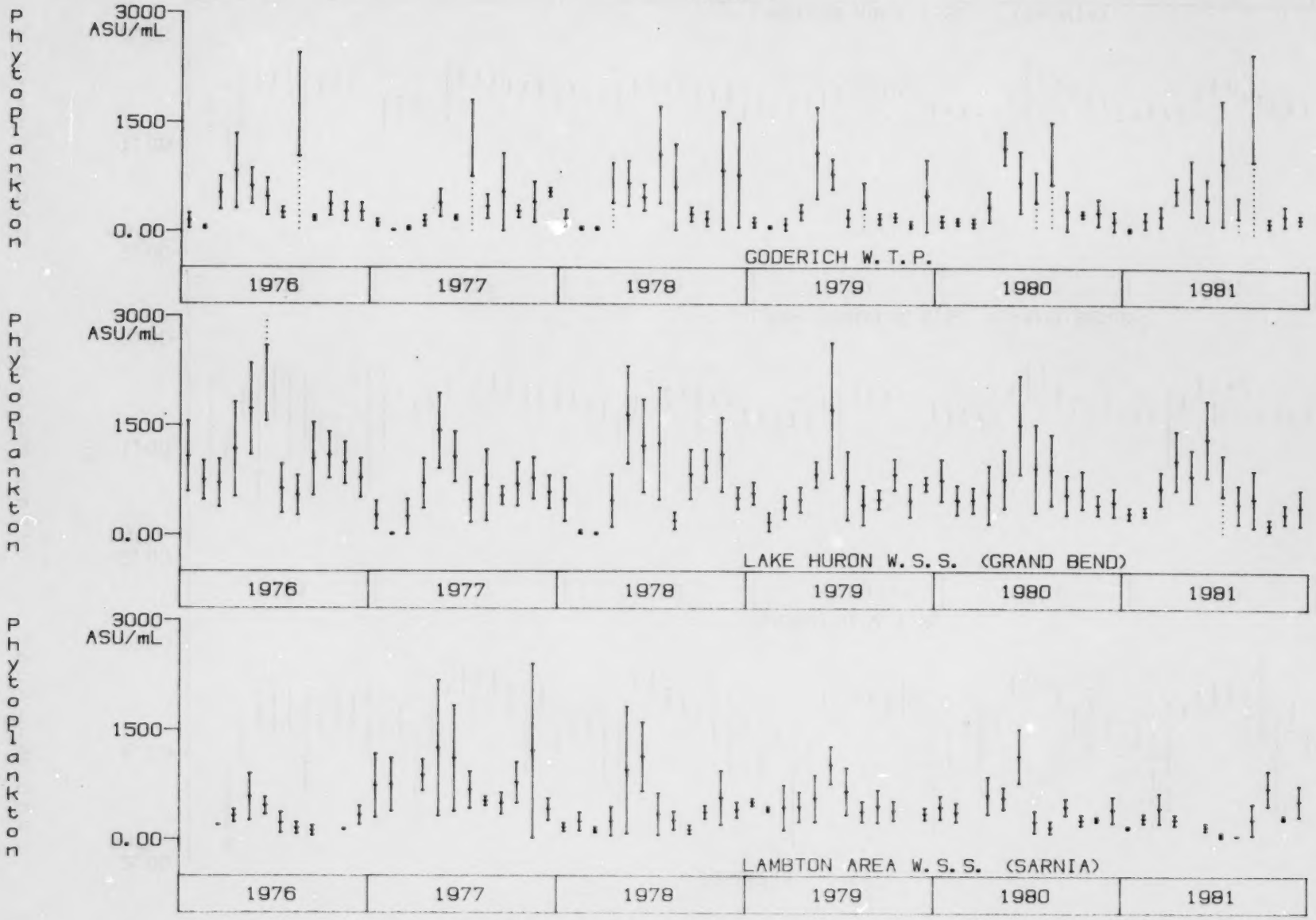
Phytoplankton
3000
ASU/mL
1500
0.00
GODERICH W.T.P.
1976
1977
1978
1979
1980
1981
Phytoplankton
3000
ASU/mL
1500
0.00
LAKE HURON W.S.S. (GRAND BEND)
1976
1977
1978
1979
1980
1981
Phytoplankton
3000
ASU/mL
1500
0.00
LAMBTON AREA W.S.S. (SARNIA)
1976
1977
1978
1979
1980
1981

Table 1: Annual mean phytoplankton biomass in Lake Huron raw water samples at Goderich, Grand Bend and Sarnia waterworks intakes 1965-1981. All values expressed as Areal Standard Units per mL.

Year	Goderich	Grand Bend	Sarnia
1965	937	-	-
1966	1196	-	623
1967	759	-	444
1968	823	1799	865
1969	738	285	645
1970	324	211	701
1971	556	418	698
1972	1207	793	-
1973	450	168	-
1974	861	251	-
1975	490	766	-
1976	445	1109	289
1977	327	652	816
1978	440	757	452
1979	335	651	511
1980	376	715	479
1981	389	592	312

LIST OF APPENDICES

Appendix 1a: Annual summary of weekly raw water data for twelve parameters at Goderich Water Treatment Plant, 1976-1981.

Appendix 1b: Annual summary of weekly raw water data for twelve parameters at Lake Huron Water Supply System (Grand Bend) 1976-1981.

Appendix 1c: Annual summary of weekly raw water data for twelve parameters at Lambton Area Water Supply System (Sarnia) 1976-1981.

Appendix 2a: Annual summary of data (short table) for twelve parameters at Goderich Water Treatment Plant, 1976-1981.

Appendix 2b: Annual summary of data (short table) for twelve parameters at Lake Huron Water Supply System (Grand Bend), 1976-1981.

Appendix 2c: Annual summary of data (short table) for twelve parameters at Lambton Area Water Supply System (Sarnia), 1976-1981.

Appendix 3a: Annual summary of weekly raw water data converted to monthly means (± 1 S.D.) for twelve parameters at Goderich Water Treatment Plant, 1976-1981.

Appendix 3b: Annual summary of weekly raw water data converted to monthly means (± 1 S.D.) for twelve parameters at Lake Huron Water Supply System (Grand Bend), 1976-1981.

Appendix 3c: Annual summary of weekly raw water data converted to monthly means (± 1 S.D.) for twelve parameters at Lambton Area Water Supply System (Sarnia), 1976-1981.

Appendix Ia

Plant # 1 - GODERICH W.P.P. 1976

	Tot.P	F.r.P	NH3	T.Kjl	NO2	NO3	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
JAN 9	-	-	-	-	-	-	-	-	-	-	-	35
JAN 16	-	-	-	-	-	-	-	-	-	-	-	90
JAN 23	-	-	-	-	-	-	-	-	-	-	-	181
JAN 29	-	-	-	-	-	-	-	-	-	-	-	255
FEB 9	0.020	0.010	0.055	0.415	0.013	1.780	27.0	-	2.35	0.6	-	70
FEB 16	0.027	0.011	0.070	0.455	0.017	2.600	24.0	-	2.40	0.8	-	30
FEB 23	0.043	0.015	0.065	0.430	0.011	1.290	17.5	-	1.70	0.8	-	50
MAR 1	0.035	0.020	0.060	0.505	0.017	1.650	12.0	-	1.90	1.2	0.6	331
MAR 8	0.059	0.027	0.060	0.440	0.015	1.350	10.0	-	1.80	1.5	0.7	258
MAR 15	0.039	0.017	0.045	0.395	0.011	1.450	12.0	-	1.55	2.1	1.3	595
MAR 22	0.053	0.023	0.055	0.360	0.013	1.150	7.5	-	1.15	2.1	0.9	809
MAR 29	0.067	0.024	0.040	0.320	0.009	0.630	7.5	-	1.05	2.2	2.2	629
APR 5	0.037	0.015	0.020	0.375	0.009	0.630	7.0	-	1.10	2.3	0.9	385
APR 12	0.205	0.021	0.040	1.150	0.012	1.010	11.0	-	0.75	25.0	8.4	-
APR 19	0.027	0.007	0.015	0.295	0.003	1.620	7.5	-	0.75	3.6	0.6	701
APR 26	0.071	0.012	0.025	0.535	0.007	0.590	10.0	-	0.70	7.6	-	1388
MAY 3	0.069	0.026	0.035	0.665	0.011	0.880	11.0	-	0.60	12.0	-	904
MAY 17	0.023	0.007	0.010	0.255	0.011	0.460	7.0	-	0.45	7.0	-	483
MAY 25	0.019	0.016	0.000	0.270	0.005	0.240	5.5	-	0.75	2.1	-	729
MAY 31	0.053	0.010	0.015	0.460	0.006	0.090	6.5	-	0.45	3.2	-	357
JUN 7	0.019	0.001	0.040	0.245	0.002	0.170	5.5	-	0.70	4.1	-	752
JUN 14	0.009	0.004	0.025	0.185	0.003	0.230	5.5	-	0.75	0.9	-	261
JUN 21	0.015	0.003	0.025	0.210	0.001	0.160	5.5	-	0.40	2.1	-	401
JUN 28	0.027	0.003	0.015	0.245	0.003	0.270	5.0	-	0.25	1.5	-	-
JUL 6	0.023	0.002	0.015	0.260	0.003	0.260	6.0	-	0.45	2.4	-	-
JUL 12	0.115	0.007	0.025	0.525	0.003	0.100	8.0	-	0.45	10.0	-	330
JUL 19	0.042	0.010	0.025	0.395	0.004	0.000	6.0	-	0.65	4.7	-	189
JUL 26	0.020	0.004	0.020	0.210	0.005	0.210	7.5	-	0.85	8.2	-	240
AUG 3	0.027	0.004	0.015	0.235	0.001	0.190	9.0	-	0.30	-	-	302
AUG 9	0.013	0.001	0.020	0.195	0.003	0.170	13.5	-	0.65	1.4	-	386
AUG 16	0.032	0.006	0.020	0.275	0.001	0.190	6.5	-	0.80	4.4	-	454
AUG 23	0.040	0.003	0.015	0.200	0.002	0.160	6.5	-	0.70	1.1	-	432
AUG 30	0.046	0.004	0.020	0.395	0.003	0.160	9.0	-	1.60	4.9	-	3572
SEP 6	-	-	-	-	-	-	-	-	-	1.5	-	172
SEP 13	0.012	0.004	0.020	0.230	0.007	0.160	6.5	-	0.80	2.7	-	148
SEP 20	0.024	0.005	0.015	0.245	0.003	0.190	7.5	-	0.70	0.5	-	214
SEP 27	0.030	0.009	0.015	0.315	0.004	0.200	13.5	-	0.65	1.7	1.0	-
OCT 5	0.021	0.004	0.015	0.255	0.006	0.140	7.0	-	0.80	1.1	-	449
OCT 13	0.023	0.001	0.015	0.300	0.005	0.130	8.0	-	0.55	2.0	-	470
OCT 18	0.078	0.007	0.020	0.450	0.003	0.210	9.5	-	0.60	4.1	-	-
OCT 25	0.025	0.005	0.020	0.245	0.004	0.240	15.0	-	0.55	5.3	-	189
NOV 1	0.040	0.005	0.020	0.350	0.003	0.340	11.0	-	0.60	3.4	-	191
NOV 8	0.054	0.007	0.020	0.530	0.001	0.260	8.0	-	0.60	3.2	-	340
NOV 15	0.115	0.004	0.035	0.825	0.003	0.290	9.5	-	0.50	5.2	-	131
NOV 22	0.075	0.005	0.020	0.595	0.003	0.530	12.0	-	1.00	3.9	-	-
NOV 29	0.025	0.003	0.020	0.230	0.005	0.330	5.0	-	0.30	4.2	-	397
DEC 6	0.046	0.005	0.015	0.370	0.005	0.700	7.5	-	0.40	1.2	-	403
DEC 13	0.021	0.005	0.015	0.215	0.004	0.770	11.0	-	1.00	1.5	-	170
DEC 20	0.017	0.004	0.010	0.220	0.001	0.530	7.0	-	0.45	1.0	-	224
DEC 29	0.025	0.017	0.100	0.315	0.004	0.610	0.5	-	0.95	0.5	-	-
min.	0.009	0.001	0.000	0.185	0.001	0.000	5.0	-	0.25	0.5	0.6	30
max.	0.205	0.027	0.100	1.150	0.017	2.600	27.0	-	2.40	25.0	8.4	3572
mean	0.012	0.009	0.027	0.372	0.005	0.557	9.4	-	0.83	3.6	1.3	445
s.dev.	0.339	0.337	0.338	0.336	0.337	0.561	4.6	-	0.60	4.1	3.4	555
#samples	45	45	45	45	45	45	45	0	45	45	9	43

Plant # 1 - GODERICH W.T.P. 1977

Appendix Ia - Cont'd...

	Tot.P	F.r.P	NH3	T.Kjl	NO2	NO3	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
JAN 4	0.011	0.004	0.045	0.120	0.008	0.360	7.0	-	0.75	0.7	0.2	144
JAN 12	0.009	0.003	0.035	0.205	0.001	0.000	8.0	-	0.80	0.8	-	161
JAN 18	0.007	0.004	0.025	0.200	0.001	0.380	10.0	-	0.75	0.4	-	81
JAN 24	0.019	0.008	0.035	0.290	0.003	0.430	11.5	-	0.60	0.9	-	69
FEB 7	0.127	0.113	0.625	0.865	0.007	0.480	18.0	-	0.70	0.4	0.3	11
FEB 14	0.065	0.042	0.245	0.425	0.005	0.570	18.5	-	0.95	0.5	0.4	19
FEB 21	0.059	0.037	0.095	0.380	0.003	0.420	11.0	-	0.60	0.9	0.8	-
FEB 28	0.121	0.058	0.275	0.530	0.006	0.350	21.5	-	0.65	1.0	1.0	-
MAR 7	0.073	0.025	0.110	0.360	0.009	0.490	14.0	-	0.70	0.4	0.2	29
MAR 14	0.208	0.055	0.160	1.020	0.025	3.520	11.5	-	1.50	5.8	2.0	-
MAR 21	0.051	0.031	0.075	0.495	0.015	2.670	15.5	-	1.75	0.4	0.1	64
MAR 28	0.026	0.009	0.020	0.230	0.003	0.750	9.0	-	0.85	0.5	0.5	21
APR 5	0.066	0.010	0.035	0.450	0.008	1.150	7.5	-	0.80	-	-	207
APR 12	0.118	0.027	0.055	0.710	0.014	1.130	9.5	-	0.90	-	-	157
APR 25	0.014	0.005	0.015	0.245	0.005	0.760	9.5	-	0.50	-	-	65
MAY 2	0.027	0.003	0.075	0.335	0.006	0.980	14.0	-	0.40	-	-	324
MAY 9	0.106	0.010	0.020	0.630	0.007	0.580	9.0	-	0.45	-	-	323
MAY 16	0.025	0.003	0.015	0.260	0.003	0.300	8.0	-	0.40	-	-	242
MAY 30	0.006	-	-	0.165	-	-	7.0	-	0.45	-	-	666
JUN 9	0.010	0.003	0.010	0.200	0.003	0.250	6.5	-	0.45	-	-	-
JUN 13	-	0.006	0.005	0.195	0.002	0.280	6.0	-	-	-	-	153
JUN 20	0.011	0.003	0.015	0.180	0.002	0.230	6.0	-	0.35	-	-	182
JUN 27	0.022	0.009	0.015	0.215	0.002	0.200	7.5	-	0.20	-	-	213
JUL 5	0.066	0.007	0.025	0.440	0.003	0.230	5.5	-	0.25	-	-	434
JUL 11	0.011	0.000	0.015	0.220	0.003	0.270	6.0	-	0.35	-	-	194
JUL 18	0.025	0.007	0.015	0.230	0.002	0.220	6.0	-	0.30	-	-	76
JUL 26	0.146	0.007	0.010	0.910	0.002	0.180	8.0	-	0.35	-	-	2319
AUG 2	0.007	0.001	0.010	0.160	0.002	0.200	6.5	-	0.25	-	-	257
AUG 8	0.008	0.003	0.015	0.195	0.003	0.220	6.5	-	0.40	-	-	305
AUG 15	-	-	-	-	-	-	-	-	-	-	-	622
AUG 22	-	-	-	-	-	-	-	-	-	-	-	326
AUG 29	0.034	0.004	0.010	0.230	0.002	0.210	6.0	-	0.40	-	-	189
SEP 6	0.019	0.002	0.015	0.195	0.003	0.300	6.0	216	0.60	-	-	1296
SEP 12	-	-	-	-	-	-	-	234	-	-	-	520
SEP 19	0.021	0.002	0.010	0.285	0.003	0.250	13.0	269	0.40	-	-	122
SEP 26	0.040	0.003	0.010	0.200	0.003	0.290	6.0	223	0.40	-	-	223
OCT 3	0.050	0.015	0.020	0.870	0.011	0.178	10.5	369	1.35	-	-	320
OCT 11	0.070	0.005	0.020	0.525	0.004	0.510	7.0	244	0.80	-	-	391
OCT 17	0.093	0.009	0.015	0.400	0.005	0.930	12.0	289	0.85	-	-	212
OCT 24	0.020	0.007	0.015	0.365	0.003	1.010	16.5	379	0.45	-	-	210
OCT 31	0.012	0.003	0.010	0.250	0.004	0.510	9.5	265	0.45	-	-	226
NOV 8	0.012	0.006	0.025	0.230	0.003	0.410	8.0	252	0.35	1.3	0.7	85
NOV 14	0.031	0.009	0.015	0.250	0.005	0.400	8.0	250	0.45	3.2	1.3	275
NOV 21	0.057	0.009	0.025	0.450	0.005	0.400	6.0	227	0.55	2.8	1.2	545
NOV 28	0.065	0.008	0.015	0.570	0.004	0.400	6.5	233	0.55	4.0	1.0	710
DEC 5	0.096	0.011	0.035	0.720	0.010	1.130	9.5	291	0.90	7.6	4.4	-
DEC 12	0.154	0.012	0.030	1.360	0.008	1.110	12.0	322	0.85	6.3	4.4	580
DEC 19	0.051	0.009	0.030	0.435	0.007	1.460	10.0	334	1.00	2.6	1.8	500
min.	0.006	0.000	0.005	0.120	0.001	0.000	5.5	216	0.20	0.4	0.1	11
max.	0.208	0.113	0.625	1.360	0.025	3.520	21.5	379	1.75	7.6	4.4	2319
mean	0.052	0.014	0.054	0.404	0.005	0.616	9.6	275	0.63	2.1	1.3	327
s.dev.	0.047	0.020	0.105	0.268	0.004	0.648	3.8	52	0.33	2.3	1.3	394
#samples	44	44	44	45	44	44	45	16	44	19	16	43

Appendix Ia - Cont'd...

Plant # 1 - GODERICH W.P.P. 1978

	Tot.P	F.r.P	NH3	T.Kjl	NO2	NO3	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
JAN 3	-	-	-	-	-	-	-	-	-	2.5	0.4	334
JAN 9	-	-	-	-	-	-	-	-	-	-	-	262
JAN 16	0.029	0.020	0.060	0.310	0.008	0.800	11.5	255	0.80	0.9	0.2	120
JAN 23	0.028	0.015	0.045	0.300	0.007	0.860	13.0	334	0.35	2.5	2.5	113
JAN 30	0.020	0.011	0.025	0.240	0.005	0.510	7.0	259	0.70	2.0	2.0	52
FEB 6	0.036	0.025	0.115	0.310	0.009	0.500	9.5	253	0.80	1.2	0.9	27
FEB 13	0.018	0.015	0.065	0.640	0.005	0.480	8.0	207	0.65	0.6	0.4	50
FEB 20	0.009	0.006	0.025	0.190	0.003	0.540	8.0	265	0.80	0.6	0.3	59
FEB 27	0.014	0.006	0.055	0.215	0.003	0.430	7.5	265	0.70	0.4	0.3	20
MAR 6	0.009	0.004	0.045	0.185	0.005	0.330	7.5	245	0.60	0.3	0.2	14
MAR 14	0.013	0.013	0.055	0.230	0.003	0.460	9.5	264	0.70	0.4	0.1	48
MAR 20	0.011	0.007	0.040	0.235	0.003	0.710	9.5	297	0.65	0.7	0.4	46
MAR 28	0.039	0.026	0.115	0.535	0.019	3.320	25.0	510	1.45	1.1	0.6	47
APR 3	0.064	0.032	0.120	0.535	0.019	2.690	14.0	392	1.20	2.6	1.5	119
APR 10	0.081	0.027	0.075	0.705	0.016	1.770	8.5	313	1.30	1.9	0.7	107
APR 17	0.033	0.020	0.035	0.450	0.013	2.100	13.5	441	1.20	1.4	0.5	123
APR 24	0.098	0.011	0.025	0.720	0.010	1.520	15.0	417	0.55	3.0	0.2	1222
MAY 1	-	-	-	-	-	-	-	-	-	-	-	636
MAY 8	-	-	-	-	-	-	-	-	-	-	-	-
MAY 15	0.019	0.005	0.010	0.300	0.005	0.560	10.5	291	0.35	2.9	0.3	334
MAY 23	0.013	0.002	0.015	0.190	0.003	0.310	6.0	220	0.40	1.5	0.3	354
MAY 29	0.010	0.001	0.010	0.185	0.003	0.350	6.5	226	0.30	0.9	0.4	241
JUN 5	0.012	0.002	0.015	0.205	0.003	0.290	6.0	221	-	3.2	0.2	534
JUN 12	0.044	0.001	0.020	0.275	0.003	0.310	6.0	217	0.25	1.9	0.6	685
JUN 19	0.014	0.004	0.030	0.170	0.003	0.250	6.0	217	0.40	1.4	0.7	398
JUN 26	0.025	0.100	0.003	0.300	0.008	0.004	6.5	207	0.35	0.8	0.7	265
JUL 4	0.015	0.003	0.015	0.190	0.003	0.120	5.5	215	0.45	2.1	0.3	571
JUL 10	0.076	0.004	0.015	0.505	0.005	0.230	8.0	227	0.45	10.0	0.0	1867
JUL 17	0.021	0.002	0.020	0.255	0.003	0.270	5.0	207	0.65	2.0	0.0	1341
JUL 24	0.037	0.003	0.010	0.185	0.002	0.240	6.5	217	0.45	1.8	0.2	461
AUG 1	0.020	0.005	0.030	0.250	0.003	0.230	8.0	223	0.55	2.7	0.4	1461
AUG 8	0.020	0.003	0.015	0.450	0.003	0.250	9.0	229	0.50	1.1	0.6	177
AUG 15	0.010	0.005	0.025	0.180	0.004	0.240	6.0	216	0.45	0.7	0.6	-
AUG 21	0.023	0.005	0.025	0.235	0.003	0.210	13.0	248	0.60	2.2	0.6	244
AUG 29	0.024	0.004	0.025	0.225	0.001	0.210	13.5	275	0.60	1.3	0.2	576
SEP 5	0.008	0.005	0.025	0.225	0.005	0.220	7.5	221	0.55	1.0	0.5	145
SEP 11	0.013	0.005	0.010	0.205	0.003	0.250	6.0	213	0.60	0.8	0.3	173
SEP 18	0.005	0.001	0.015	0.165	0.003	0.230	11.0	267	0.65	1.5	1.2	283
SEP 26	0.007	0.003	0.010	0.200	0.004	0.330	6.5	227	0.80	8.3	1.7	346
OCT 3	0.014	0.003	0.025	0.190	0.071	0.580	6.0	216	-	1.4	0.4	180
OCT 10	0.025	0.009	0.025	0.225	0.006	0.410	7.5	242	0.75	1.4	0.6	129
OCT 16	0.012	0.003	0.015	0.220	0.011	0.720	8.5	254	0.70	0.9	0.9	98
OCT 23	0.059	0.010	0.025	0.525	0.005	0.520	11.0	254	0.05	3.5	0.6	128
OCT 30	0.027	0.011	0.015	0.225	0.005	0.440	10.0	261	0.58	1.5	0.7	350
NOV 6	0.018	0.003	0.010	0.195	0.003	0.250	6.5	213	0.58	1.6	0.7	214
NOV 14	0.043	0.004	0.015	0.255	0.003	0.240	6.0	219	0.56	2.1	0.9	335
NOV 20	0.069	0.009	0.025	0.450	0.005	0.650	12.0	304	0.30	3.1	0.8	1993
NOV 27	0.018	0.004	0.015	0.275	0.007	1.300	13.0	386	1.30	1.7	0.9	332
DEC 4	0.023	0.004	0.020	0.240	0.003	0.370	5.5	225	0.62	1.6	0.5	1599
DEC 11	0.068	-	-	0.390	-	-	13.0	255	0.48	1.3	1.2	273
DEC 18	0.063	0.009	0.015	0.560	0.003	0.930	8.5	237	0.82	4.0	1.3	469
DEC 25	-	-	-	-	-	-	-	-	-	-	-	-
min.	0.005	0.001	0.003	0.165	0.001	0.004	5.0	207	0.05	0.3	0.0	14
max.	0.098	0.100	0.120	0.720	0.071	3.320	25.0	510	1.45	10.0	2.5	1993
mean	0.028	0.010	0.031	0.307	0.007	0.621	9.2	264	0.66	2.0	0.6	440
s.dev.	0.023	0.016	0.023	0.150	0.011	0.667	3.8	67	0.28	1.8	0.5	496
#samples	47	46	46	47	46	46	47	47	45	43	48	49

Plant # 1 - GODERICH W.T.P. 1979

	Tot.P	F.r.P	NH3	T.Kjl	NO2	NO3	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
JAN 2	0.021	0.008	0.030	0.285	0.004	1.030	13.0	327	1.22	1.4	0.7	193
JAN 8	0.017	0.005	0.020	0.240	0.003	0.870	9.0	258	0.92	-	-	149
JAN 16	0.015	0.003	0.020	0.240	0.002	0.940	12.0	287	1.06	0.7	0.5	24
JAN 23	0.009	0.007	0.020	0.240	0.003	0.900	12.5	301	1.10	-	-	141
JAN 29	0.033	0.006	0.035	0.310	0.002	0.900	14.5	318	1.16	1.1	1.1	141
FEB 6	0.008	0.001	0.010	0.160	0.001	0.460	8.0	239	0.80	0.4	0.4	49
FEB 12	0.010	0.005	0.025	0.175	0.001	0.610	11.0	268	0.92	0.4	0.5	33
FEB 19	0.013	0.008	0.045	0.185	0.001	0.500	9.0	254	0.82	0.4	0.2	65
FEB 26	0.035	0.024	0.105	0.305	0.002	0.480	14.0	269	0.82	0.4	-	53
MAR 5	0.048	0.043	0.195	0.445	0.004	0.570	16.0	285	0.88	0.6	0.3	58
MAR 12	0.038	0.026	0.100	0.410	0.009	1.970	16.5	346	1.30	-	-	130
MAR 19	0.051	0.028	0.090	0.500	0.020	4.200	32.0	494	2.04	0.9	0.5	23
MAR 27	0.029	0.013	0.035	0.340	0.008	1.590	8.0	233	1.08	1.4	1.4	198
APR 2	0.033	0.015	0.050	0.385	0.009	1.800	10.5	295	1.04	1.3	0.9	-
APR 9	0.088	0.018	0.020	0.590	0.009	2.300	14.0	373	1.22	4.3	3.0	371
APR 16	0.252	0.040	0.055	1.100	0.011	2.090	8.5	282	1.18	2.3	1.3	160
APR 23	0.032	0.011	0.015	0.250	0.003	1.400	9.5	303	0.80	1.6	1.6	278
APR 30	0.196	0.018	0.015	0.680	0.005	1.500	12.0	348	0.68	2.8	0.6	1345
MAY 7	0.045	0.012	0.015	0.350	0.007	1.100	10.0	303	0.62	1.5	0.8	443
MAY 17	0.018	0.005	0.015	0.230	0.004	0.750	7.5	251	0.48	1.7	0.5	2037
MAY 22	0.020	0.004	0.005	0.210	0.004	0.690	7.0	238	0.48	2.2	0.9	649
MAY 29	0.019	0.001	0.005	0.200	0.003	0.400	7.5	227	0.46	1.8	0.4	948
JUN 4	0.048	0.000	0.000	0.230	0.003	0.270	6.0	223	0.38	1.3	0.5	646
JUN 12	0.016	0.002	0.005	0.190	0.002	0.320	7.0	217	0.46	2.0	1.1	591
JUN 18	0.045	0.005	0.015	0.300	0.004	0.360	8.0	230	0.38	3.0	0.8	946
JUN 25	0.009	0.001	0.015	0.140	0.002	0.330	6.5	220	0.46	1.9	0.3	995
JUL 3	0.016	0.002	0.010	0.220	0.003	0.500	8.0	232	0.52	2.0	0.5	331
JUL 9	0.023	0.001	0.010	0.200	0.003	0.330	6.0	210	0.42	1.8	0.3	285
JUL 16	0.004	0.001	0.010	0.120	0.002	0.230	5.5	221	0.42	0.8	0.5	174
JUL 23	0.011	0.001	0.005	0.150	0.002	0.290	5.5	213	0.40	0.2	0.2	96
JUL 30	0.010	0.001	0.010	0.150	0.001	0.320	6.0	219	0.40	0.9	0.7	74
AUG 7	0.013	0.002	0.010	0.170	0.002	0.280	6.0	215	0.46	1.5	0.5	422
AUG 13	-	-	-	-	-	-	-	216	-	-	-	773
AUG 20	0.017	0.004	0.015	0.150	0.003	0.290	7.0	219	0.52	1.6	1.1	43
AUG 27	0.015	0.001	0.015	0.200	0.002	0.270	7.5	213	0.46	4.8	0.7	63
SEP 4	0.001	0.000	0.010	0.130	0.002	0.240	10.5	231	0.44	0.9	0.4	127
SEP 10	0.001	0.001	0.015	0.220	0.001	0.270	9.5	215	0.72	1.4	0.7	257
SEP 17	0.016	0.001	0.010	0.180	0.002	0.230	8.0	217	0.54	1.3	0.3	215
SEP 24	0.021	0.002	0.005	0.230	0.003	0.220	14.0	253	0.50	1.3	0.4	109
OCT 1	0.071	0.001	0.010	0.200	0.002	0.210	8.0	227	0.44	0.9	0.3	147
OCT 9	0.024	0.004	0.015	0.510	0.003	0.230	17.0	268	0.36	2.0	0.6	272
OCT 15	0.042	0.006	0.015	0.290	0.002	0.240	11.5	250	0.36	1.5	0.4	235
OCT 22	0.022	0.003	0.005	0.160	0.002	0.240	6.0	215	0.50	1.3	0.6	138
OCT 29	0.063	0.005	0.035	0.710	0.025	0.690	11.5	277	0.72	3.4	1.0	205
NOV 5	0.027	0.004	0.015	0.200	0.003	0.490	7.0	234	0.38	1.1	0.9	87
NOV 13	0.025	0.014	0.030	0.280	0.003	0.900	11.5	286	0.62	1.4	0.6	76
NOV 19	0.050	0.002	0.016	0.650	0.004	0.401	6.7	225	0.55	2.0	1.3	66
NOV 26	-	-	-	-	-	-	-	-	-	1.5	0.5	163
DEC 3	0.036	0.006	0.015	0.290	0.006	1.280	7.5	250	0.74	-	-	190
DEC 10	-	-	-	-	-	-	-	-	-	3.3	1.5	308
DEC 17	0.048	0.010	0.015	0.360	0.006	1.600	11.0	302	0.90	1.1	0.6	260
DEC 26	0.119	0.033	0.010	0.380	0.090	3.800	12.0	372	1.78	6.3	0.9	1229
min.	0.001	0.000	0.000	0.120	0.001	0.210	5.5	210	0.36	0.2	0.2	23
max.	0.252	0.043	0.195	1.100	0.090	4.200	32.0	494	2.04	6.3	3.0	2037
mean	0.037	0.008	0.026	0.313	0.006	0.857	10.0	264	0.73	1.7	0.8	335
s.dev.	0.045	0.010	0.034	0.203	0.013	0.860	4.5	55	0.37	1.2	0.5	399
#samples	49	49	49	49	49	49	49	50	49	47	46	51

Appendix Ia - Cont'd....

Plant # 1 - GODERICH W.T.P. 1980

	Tot.P	F.r.P	NH3	F.Kj1	NO2	NO3	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
JAN 2	0.035	0.012	0.025	0.350	0.005	1.660	9.5	235	1.22	1.5	0.29	1553
JAN 14	0.033	0.008	0.022	0.420	0.003	1.660	9.7	247	1.02	2.3	0.40	2474
JAN 21	0.049	0.014	0.022	0.300	0.003	1.660	11.0	247	1.04	4.0	0.63	1220
JAN 23	0.047	0.011	0.022	0.280	0.003	1.660	11.0	247	1.02	3.7	0.55	1229
FEB 4	0.021	0.008	0.022	0.220	0.003	1.660	11.0	247	1.04	3.0	0.47	1123
FEB 11	0.035	0.008	0.022	0.196	0.003	1.660	10.0	227	1.04	3.3	0.55	1233
FEB 25	0.047	0.011	0.022	0.196	0.003	1.660	10.0	227	1.04	3.5	0.55	1211
MAR 3	0.037	0.011	0.022	0.168	0.003	1.660	10.0	227	1.04	3.5	0.55	1264
MAR 17	0.044	0.011	0.022	0.168	0.003	1.660	10.0	227	1.04	3.5	0.55	1467
MAR 24	0.044	0.011	0.022	0.168	0.003	1.660	10.0	227	1.04	3.5	0.55	1147
MAR 31	0.044	0.011	0.022	0.196	0.003	1.660	10.0	227	1.04	3.5	0.55	1147
APR 14	0.044	0.011	0.022	0.196	0.003	1.660	10.0	227	1.04	3.5	0.55	1147
APR 21	0.044	0.011	0.022	0.196	0.003	1.660	10.0	227	1.04	3.5	0.55	1147
APR 28	0.044	0.011	0.022	0.196	0.003	1.660	10.0	227	1.04	3.5	0.55	1147
MAY 5	0.044	0.011	0.022	0.196	0.003	1.660	10.0	227	1.04	3.5	0.55	1147
MAY 12	0.044	0.011	0.022	0.196	0.003	1.660	10.0	227	1.04	3.5	0.55	1147
MAY 19	0.044	0.011	0.022	0.196	0.003	1.660	10.0	227	1.04	3.5	0.55	1147
JUN 2	0.044	0.011	0.022	0.196	0.003	1.660	10.0	227	1.04	3.5	0.55	1147
JUN 9	0.044	0.011	0.022	0.196	0.003	1.660	10.0	227	1.04	3.5	0.55	1147
JUN 16	0.044	0.011	0.022	0.196	0.003	1.660	10.0	227	1.04	3.5	0.55	1147
JUN 25	0.044	0.011	0.022	0.196	0.003	1.660	10.0	227	1.04	3.5	0.55	1147
JUL 7	0.044	0.011	0.022	0.196	0.003	1.660	10.0	227	1.04	3.5	0.55	1147
JUL 14	0.044	0.011	0.022	0.196	0.003	1.660	10.0	227	1.04	3.5	0.55	1147
JUL 21	0.044	0.011	0.022	0.196	0.003	1.660	10.0	227	1.04	3.5	0.55	1147
JUL 28	0.044	0.011	0.022	0.196	0.003	1.660	10.0	227	1.04	3.5	0.55	1147
AUG 5	0.044	0.011	0.022	0.196	0.003	1.660	10.0	227	1.04	3.5	0.55	1147
AUG 11	0.044	0.011	0.022	0.196	0.003	1.660	10.0	227	1.04	3.5	0.55	1147
AUG 18	0.044	0.011	0.022	0.196	0.003	1.660	10.0	227	1.04	3.5	0.55	1147
AUG 27	0.044	0.011	0.022	0.196	0.003	1.660	10.0	227	1.04	3.5	0.55	1147
SEP 2	0.044	0.011	0.022	0.196	0.003	1.660	10.0	227	1.04	3.5	0.55	1147
SEP 15	0.044	0.011	0.022	0.196	0.003	1.660	10.0	227	1.04	3.5	0.55	1147
SEP 22	0.044	0.011	0.022	0.196	0.003	1.660	10.0	227	1.04	3.5	0.55	1147
SEP 29	0.044	0.011	0.022	0.196	0.003	1.660	10.0	227	1.04	3.5	0.55	1147
OCT 6	0.044	0.011	0.022	0.196	0.003	1.660	10.0	227	1.04	3.5	0.55	1147
OCT 14	0.044	0.011	0.022	0.196	0.003	1.660	10.0	227	1.04	3.5	0.55	1147
OCT 20	0.044	0.011	0.022	0.196	0.003	1.660	10.0	227	1.04	3.5	0.55	1147
OCT 27	0.044	0.011	0.022	0.196	0.003	1.660	10.0	227	1.04	3.5	0.55	1147
NOV 3	0.044	0.011	0.022	0.196	0.003	1.660	10.0	227	1.04	3.5	0.55	1147
NOV 10	0.044	0.011	0.022	0.196	0.003	1.660	10.0	227	1.04	3.5	0.55	1147
NOV 17	0.044	0.011	0.022	0.196	0.003	1.660	10.0	227	1.04	3.5	0.55	1147
NOV 24	0.044	0.011	0.022	0.196	0.003	1.660	10.0	227	1.04	3.5	0.55	1147
DEC 1	0.044	0.011	0.022	0.196	0.003	1.660	10.0	227	1.04	3.5	0.55	1147
DEC 15	0.044	0.011	0.022	0.196	0.003	1.660	10.0	227	1.04	3.5	0.55	1147
DEC 22	0.044	0.011	0.022	0.196	0.003	1.660	10.0	227	1.04	3.5	0.55	1147
min.	0.021	0.008	0.022	0.168	0.003	1.660	9.5	211	1.02	1.5	0.29	1147
max.	0.049	0.014	0.025	0.420	0.005	1.660	11.0	247	1.22	4.0	0.63	2474
mean	0.043	0.011	0.022	0.196	0.003	1.660	10.0	227	1.04	3.5	0.55	1147
s.dev.	0.004	0.002	0.000	0.042	0.000	0.000	0.3	7	0.03	0.3	0.04	137
#samples	51	51	51	51	51	51	51	51	51	51	51	52

Plant # 1 - GODERICH W.T.P. 1981

	Tot.P	f.r.P	NH3	T.Kjl	NO2	NO3	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
JAN 5	0.029	0.009	0.020	0.210	0.002	0.620	8.5	262	0.86	0.6	0.5	29
JAN 12	0.024	0.014	0.045	0.320	0.002	0.730	10.0	263	0.86	0.4	0.3	11
JAN 19	0.016	0.006	0.030	0.260	0.001	0.550	8.5	245	0.66	0.4	0.2	63
JAN 26	0.010	0.004	0.010	0.190	0.001	0.480	8.5	245	0.86	0.6	0.3	46
FEB 2	0.009	0.003	0.015	0.200	0.003	0.810	14.5	298	0.98	0.8	0.4	101
FEB 9	0.009	0.007	0.040	0.240	0.002	0.520	10.0	252	0.82	0.6	0.2	191
FEB 16	0.019	0.002	0.010	0.160	0.002	0.690	13.0	276	0.88	0.6	0.3	74
FEB 23	0.850	0.056	0.005	1.430	0.035	5.500	13.5	365	2.06	2.6	1.0	318
MAR 2	0.045	0.027	0.065	0.640	0.013	4.500	21.5	434	1.88	0.4	0.2	138
MAR 9	0.022	0.012	0.025	0.290	0.007	1.420	8.0	254	0.90	0.5	0.5	96
MAR 16	0.020	0.004	0.015	0.210	0.005	1.500	12.5	287	0.84	1.0	0.3	283
MAR 23	0.023	0.006	0.010	0.230	0.005	1.120	13.0	248	0.72	1.0	0.5	184
MAR 30	0.010	0.001	0.005	0.190	0.004	0.970	6.0	230	0.66	1.3	0.5	440
APR 6	0.081	0.010	0.010	0.540	0.004	1.440	11.5	288	0.60	2.4	1.7	664
APR 13	0.030	0.006	0.010	0.240	0.005	0.930	16.5	294	0.56	1.5	0.6	399
APR 21	0.051	0.007	0.015	0.460	0.002	1.510	14.0	348	0.64	1.2	-	484
APR 27	0.032	0.003	0.000	0.270	0.004	0.850	8.5	260	0.56	0.9	0.6	796
MAY 6	0.095	0.006	0.010	0.570	0.007	1.520	15.5	323	0.44	5.1	1.2	928
MAY 12	0.078	0.006	0.020	0.620	0.007	1.350	14.5	332	0.50	7.5	1.9	912
MAY 20	0.005	0.001	0.005	0.140	0.000	0.310	5.5	216	0.58	0.7	0.2	550
MAY 26	0.013	0.002	0.005	0.230	0.003	0.910	7.5	248	0.42	0.8	0.5	115
JUN 1	0.018	0.001	0.005	0.180	0.001	0.280	6.0	207	0.56	1.0	0.5	279
JUN 8	0.012	0.001	0.005	0.200	0.002	0.350	6.5	214	0.42	1.3	0.8	497
JUN 15	0.011	0.003	0.010	0.450	0.002	0.380	6.0	219	0.34	0.7	0.7	348
JUN 22	0.005	0.000	0.010	0.150	0.000	0.310	6.0	217	0.40	1.0	0.4	249
JUN 29	0.104	0.002	0.005	0.820	0.002	0.290	6.5	212	0.46	2.1	1.2	956
JUL 6	0.020	0.001	0.020	0.270	0.002	0.260	6.0	215	0.44	1.4	0.9	320
JUL 13	0.040	0.002	0.005	0.350	0.002	0.280	6.5	215	0.38	1.0	0.8	1467
JUL 20	0.010	0.003	0.015	0.180	0.003	0.280	6.0	213	0.38	0.3	0.3	178
JUL 27	0.180	0.002	0.015	1.080	0.002	0.580	7.0	226	0.58	1.9	0.6	1946
AUG 4	0.026	0.003	0.010	0.170	0.002	0.260	7.5	216	0.42	0.4	0.3	79
AUG 11	0.010	0.002	0.005	0.200	0.002	0.250	7.5	218	0.48	0.5	0.4	77
AUG 17	0.033	0.001	0.010	0.280	0.001	0.270	6.0	211	0.72	3.4	0.7	726
AUG 24	0.010	0.002	0.015	0.190	0.002	0.260	6.5	210	0.50	0.8	0.3	155
AUG 31	0.012	0.002	0.015	0.170	0.003	0.240	6.0	200	0.54	8.6	1.9	48
SEP 8	0.146	0.002	0.005	0.800	0.003	0.380	8.0	239	0.00	5.7	1.8	2715
SEP 14	0.014	0.003	0.010	0.180	0.002	0.310	6.0	221	0.64	0.7	0.3	79
SEP 22	0.028	0.002	0.015	0.290	0.002	0.370	10.5	245	0.70	2.3	0.1	223
SEP 29	-	-	-	-	-	-	-	-	-	-	-	-
OCT 5	0.061	0.007	0.010	0.500	0.004	0.400	7.5	227	0.60	2.3	0.6	112
OCT 13	0.002	0.001	0.000	0.270	0.001	2.050	17.0	374	1.32	0.8	0.2	154
OCT 20	0.052	0.009	0.010	0.320	0.004	0.750	8.0	249	0.68	1.5	0.3	237
OCT 26	0.026	0.007	0.020	0.590	0.008	3.900	17.5	473	1.56	1.0	0.5	96
NOV 2	0.132	0.005	0.015	0.870	0.007	2.140	18.0	390	0.76	-	-	170
NOV 10	0.042	0.006	0.005	0.460	0.003	0.820	8.5	268	0.54	2.2	0.5	142
NOV 18	0.044	0.005	0.005	0.320	0.003	0.660	10.0	260	0.52	-	-	271
NOV 23	0.026	0.007	0.005	0.260	0.004	0.860	12.5	270	0.76	2.9	0.8	479
NOV 30	-	-	-	-	-	-	-	-	-	3.2	1.0	185
DEC 7	0.059	0.008	0.010	0.430	0.006	1.500	11.0	308	1.02	1.2	0.8	210
DEC 14	0.029	0.011	0.010	0.270	0.002	0.960	8.5	252	0.84	0.6	0.3	146
DEC 22	0.070	0.016	0.020	0.300	0.005	1.240	9.0	274	0.98	0.9	0.5	186
DEC 29	0.040	0.000	0.000	0.400	0.010	0.600	10.0	265	0.80	-	-	285
min.	0.002	0.000	0.000	0.140	0.000	0.240	5.5	200	0.00	0.3	0.1	11
max:	0.850	0.056	0.065	1.430	0.035	5.500	21.5	473	2.06	8.6	1.9	2715
mean	0.055	0.006	0.013	0.372	0.004	0.989	9.9	266	0.71	1.7	0.6	389
s.dev.	0.121	0.009	0.012	0.260	0.005	1.062	3.9	60	0.36	1.8	0.5	498
#samples	50	50	50	50	50	50	50	50	50	48	47	51

Plant # 2 - LAKE HURON W.S.S. (GRAND BEND) 1975

	Tot.P	f.r.P	NH3	T.Kjl	NO2	NO3	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
JAN 8	-	-	-	-	-	-	-	-	-	-	-	1025
JAN 15	-	-	-	-	-	-	-	-	-	-	-	1483
JAN 22	-	-	-	-	-	-	-	-	-	-	-	1366
JAN 29	-	-	-	-	-	-	-	-	-	-	-	416
FEB 5	0.005	0.003	0.010	0.070	0.001	0.290	7.5	-	0.40	0.2	-	873
FEB 12	0.005	0.003	0.005	0.135	0.000	0.370	7.5	-	0.65	0.2	-	410
FEB 19	0.027	0.005	0.005	0.295	0.001	0.290	6.5	-	1.45	0.7	0.4	1025
FEB 26	0.025	0.011	0.005	0.195	0.002	0.120	7.0	-	0.75	1.4	-	679
MAR 4	-	-	-	-	-	-	-	-	-	-	-	247
MAR 11	0.082	0.017	0.015	0.300	0.004	0.560	6.5	-	1.15	0.4	0.4	709
MAR 19	0.026	0.006	0.005	0.175	0.000	0.310	6.0	-	0.95	0.9	0.3	954
MAR 25	0.014	0.011	0.010	0.185	0.000	0.130	6.5	-	0.80	0.2	0.2	916
APR 1	0.013	0.007	0.005	0.175	0.001	0.270	6.5	-	0.60	0.4	-	490
APR 8	0.013	0.004	0.015	0.155	0.000	0.280	6.0	-	0.70	0.6	0.6	844
APR 14	0.014	0.011	0.015	0.230	0.003	0.390	7.5	-	0.60	0.4	-	2078
APR 22	0.016	0.008	0.005	0.175	0.001	0.310	6.5	-	0.55	0.3	-	364
APR 29	0.022	0.009	0.010	0.200	0.002	0.360	7.0	-	0.40	0.4	-	1584
MAY 6	0.007	0.005	0.010	0.125	0.001	0.250	6.5	-	0.75	0.5	-	1107
MAY 13	0.022	0.004	0.020	0.205	0.004	0.350	7.0	-	0.40	0.8	-	1896
MAY 20	0.107	0.013	0.005	0.455	0.013	0.580	7.0	-	0.75	0.9	-	1331
MAY 27	0.011	0.005	0.010	0.265	0.019	0.290	8.0	-	1.70	1.4	-	2517
JUN 3	0.019	0.009	0.010	0.160	0.000	0.240	8.0	-	0.40	0.4	-	1474
JUN 10	0.011	0.001	0.010	0.265	0.001	0.150	6.5	-	0.85	1.3	-	2218
JUN 17	0.007	0.002	0.015	0.345	0.003	0.150	5.5	-	0.40	1.0	-	1952
JUN 24	0.019	0.003	0.005	0.285	0.001	0.230	5.5	-	-	2.0	1.6	3360
JUN 30	0.018	0.003	0.045	0.405	0.002	0.130	6.0	-	0.30	4.8	-	3950
JUL 8	-	-	0.015	0.185	0.000	0.130	7.5	-	-	-	-	1123
JUL 15	-	-	-	-	-	-	-	-	-	-	-	462
JUL 22	0.132	0.001	0.005	0.210	0.001	0.200	7.0	-	1.00	0.4	-	405
JUL 29	0.060	0.013	0.175	0.795	0.005	0.160	6.5	-	0.45	2.0	-	545
AUG 5	0.040	0.005	0.155	0.575	0.003	0.210	6.5	-	0.35	1.8	-	245
AUG 12	0.009	0.002	0.060	0.375	0.002	0.270	6.5	-	0.55	1.0	-	293
AUG 19	0.019	0.001	0.090	0.905	0.004	0.170	6.5	-	0.50	1.2	-	569
AUG 26	-	-	-	-	-	-	-	-	-	2.0	-	829
AUG 30	0.013	0.003	0.015	0.310	0.003	0.170	6.5	-	1.00	1.8	-	785
SEP 6	0.006	0.001	0.010	0.200	0.003	0.160	6.5	-	0.85	1.3	-	1650
SEP 16	0.009	0.003	0.015	0.180	0.003	0.210	6.0	-	0.80	1.1	-	555
SEP 23	0.019	0.005	0.015	0.270	0.003	0.170	6.5	-	0.90	1.8	-	1229
SEP 30	0.023	0.005	0.020	0.275	0.000	0.240	6.0	-	0.60	0.7	-	733
OCT 7	0.049	0.002	0.015	0.350	0.003	0.170	6.5	-	0.90	2.8	-	1410
OCT 14	0.064	0.009	0.015	0.330	0.003	0.210	6.5	-	1.10	4.1	-	1298
OCT 21	0.019	0.003	0.010	0.245	0.001	0.210	6.0	-	0.75	2.1	-	930
OCT 28	0.021	0.006	0.015	0.220	0.002	0.250	6.0	-	0.75	1.7	-	736
NOV 2	0.010	0.002	0.015	0.245	0.003	0.230	6.0	-	0.70	1.2	-	755
NOV 8	0.033	0.003	0.010	0.300	0.002	0.250	6.0	-	0.50	2.3	-	1330
NOV 15	0.009	0.000	0.005	0.230	0.003	0.200	5.5	-	0.50	1.3	-	1257
NOV 22	0.023	0.001	0.005	0.400	0.003	0.260	6.0	-	0.35	3.4	-	741
NOV 29	0.014	0.001	0.010	0.265	0.003	0.210	5.0	-	2.90	1.8	-	849
DEC 6	0.007	0.001	0.010	0.165	0.002	0.240	6.0	-	1.60	1.1	-	602
DEC 13	0.030	0.007	0.015	0.910	0.007	0.040	5.5	-	0.35	2.6	-	1152
DEC 20	0.021	0.002	0.005	0.195	0.003	0.290	5.5	-	0.50	2.0	-	792
DEC 29	0.020	0.004	0.035	0.650	0.001	0.330	7.0	-	0.30	1.8	-	584
min.	0.005	0.000	0.005	0.070	0.000	0.040	5.0	-	0.30	0.2	0.2	245
max.	0.132	0.017	0.175	0.910	0.019	0.580	8.0	-	2.90	4.8	1.6	3950
mean	0.026	0.005	0.022	0.302	0.003	0.245	6.5	-	0.77	1.4	0.6	1109
s.dev.	0.026	0.004	0.035	0.190	0.003	0.102	0.7	-	0.46	1.0	0.5	730
#samples	44	44	45	45	45	45	45	0	43	45	6	52

Plant # 2 - LAKE HURON W.T.P. (GRAND BEND) 1977

	Tot.P	F.r.P	NH3	T.Kjl	NO2	NO3	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
JAN 4	0.007	0.002	0.005	0.170	0.002	0.240	6.0	-	1.30	-	-	531
JAN 11	0.023	0.005	0.035	0.695	0.003	0.280	7.0	-	0.50	1.2	-	417
JAN 17	0.010	0.003	0.015	0.145	0.001	0.310	6.0	-	0.45	0.9	-	180
JAN 24	0.007	0.005	0.005	0.205	0.001	0.290	8.0	-	0.50	0.2	-	133
JAN 31	0.013	0.005	0.015	0.220	0.003	0.310	7.5	-	0.45	0.4	-	108
FEB 7	0.017	0.007	0.150	0.855	0.004	0.250	8.0	-	0.45	0.4	0.2	-
FEB 14	0.022	0.001	0.135	0.680	0.003	2.400	7.0	-	0.50	0.5	0.4	23
FEB 21	0.020	0.011	0.025	0.275	0.002	0.280	7.0	-	0.45	0.7	0.6	14
FEB 28	0.053	0.007	0.025	0.225	0.003	0.250	7.0	-	0.50	0.9	-	11
MAR 7	0.034	0.009	0.070	1.020	0.002	0.270	18.5	-	0.50	0.5	0.5	13
MAR 14	0.063	0.020	0.065	0.845	0.009	0.940	7.5	-	0.70	1.9	-	91
MAR 21	0.031	0.003	0.010	0.675	0.005	0.480	6.0	-	0.70	0.7	0.2	387
MAR 28	0.036	0.003	0.035	0.310	0.005	0.580	6.5	-	0.60	1.2	0.8	511
APR 4	0.043	0.005	0.025	0.490	0.005	0.560	6.5	-	0.60	-	-	986
APR 12	0.041	0.006	0.025	0.570	0.003	0.570	6.0	-	0.60	-	-	455
APR 18	0.031	0.008	0.035	0.555	0.006	0.620	6.5	-	0.60	-	-	368
APR 25	0.056	0.009	0.025	0.540	0.005	0.540	6.5	-	0.45	-	-	1011
MAY 2	0.018	0.007	0.040	0.260	0.005	0.660	6.5	-	0.40	-	-	1097
MAY 9	0.021	0.010	0.045	1.230	0.005	0.500	8.5	-	0.45	-	-	1864
MAY 16	0.024	0.009	0.135	0.920	0.005	0.360	7.5	-	0.40	-	-	812
MAY 24	0.022	0.002	0.045	0.490	0.003	0.440	7.0	-	0.40	-	-	1344
MAY 30	0.019	0.001	0.055	0.765	0.001	0.310	6.5	-	0.45	-	-	2023
JUN 6	0.022	0.003	0.065	0.390	0.006	0.270	7.0	-	0.35	-	-	1383
JUN 13	0.031	0.005	0.020	0.675	0.002	0.300	6.0	-	0.35	-	-	1288
JUN 20	0.033	0.007	0.000	0.320	0.003	0.280	6.0	-	0.25	-	-	632
JUN 27	0.032	0.001	0.045	0.795	0.003	0.230	6.5	-	0.25	-	-	984
JUL 4	0.018	0.003	0.030	0.585	0.000	0.240	6.0	-	0.30	-	-	301
JUL 11	0.034	0.002	0.055	0.985	0.003	0.300	6.5	-	0.35	-	-	425
JUL 18	0.021	0.004	0.055	0.890	0.002	0.200	6.0	-	0.35	-	-	936
JUL 25	0.020	0.005	0.040	0.705	0.003	0.190	6.0	-	0.35	-	-	279
AUG 2	0.017	0.002	0.005	0.990	0.003	0.230	6.5	-	0.30	-	-	721
AUG 8	0.013	0.003	0.020	0.175	0.004	0.220	6.5	-	0.35	-	-	623
AUG 15	0.034	0.003	0.035	0.270	0.003	0.230	6.0	-	0.55	-	-	270
AUG 22	0.050	0.001	0.040	0.690	0.002	0.240	6.0	-	0.40	-	-	1475
AUG 29	0.015	0.003	0.010	0.275	0.002	0.230	6.5	223	0.40	-	-	317
SEP 6	0.015	0.007	0.025	0.285	0.003	0.200	6.5	232	0.50	-	-	668
SEP 12	0.010	0.003	0.020	0.320	0.002	0.210	5.5	213	0.40	-	-	426
SEP 19	0.012	0.002	0.020	0.420	0.003	0.190	6.5	213	0.35	-	-	-
SEP 26	0.026	0.002	0.000	0.315	0.005	0.210	5.0	213	0.50	-	-	530
OCT 3	0.021	0.003	0.015	0.375	0.005	0.270	6.0	217	0.70	-	-	631
OCT 11	0.009	0.003	0.025	0.195	0.007	0.250	5.5	211	0.55	-	-	457
OCT 17	0.056	0.009	0.030	0.510	0.004	0.510	6.5	246	0.60	-	-	1129
OCT 24	0.035	0.005	0.015	0.370	0.003	0.310	6.0	222	0.40	-	-	850
OCT 31	0.025	0.001	0.160	0.505	0.011	0.020	6.0	221	0.45	-	-	415
NOV 7	0.016	0.003	0.055	0.820	0.003	0.240	6.5	215	0.45	1.3	0.1	362
NOV 14	0.021	0.009	0.015	0.430	0.005	0.260	6.0	214	0.50	2.6	0.8	856
NOV 21	0.019	0.003	0.035	0.520	0.003	0.250	5.5	209	0.40	2.3	1.2	944
NOV 28	0.046	0.003	0.075	0.645	0.003	0.370	6.0	219	0.60	2.9	0.7	959
DEC 5	0.021	0.005	0.035	0.490	0.002	0.270	5.0	204	0.60	1.9	0.7	339
DEC 12	0.018	0.003	0.080	0.810	0.001	2.800	6.5	215	0.50	-	-	525
DEC 19	0.008	0.003	0.015	0.220	0.001	0.310	16.0	210	0.55	1.1	1.1	617
DEC 28	0.010	0.003	0.060	0.360	0.000	0.280	6.0	207	0.50	3.6	0.9	873
min.	0.007	0.001	0.000	0.145	0.000	0.020	5.0	204	0.25	0.2	0.1	11
max.	0.063	0.020	0.160	1.230	0.011	2.800	18.5	246	1.30	3.6	1.2	2023
mean	0.025	0.005	0.041	0.528	0.004	0.414	6.8	217	0.48	1.3	0.6	652
s.dev.	0.014	0.003	0.036	0.267	0.002	0.469	2.2	10	0.16	1.0	0.3	464
#samples	52	52	52	52	52	52	52	18	52	19	13	50

Plant # 2 - LAKE HURON W.B.I. (GRAND BEND) 1978

	Tot.P	F.r.P	NH3	T.Kjl	NO2	NO3	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
JAN 3	0.020	0.002	0.015	0.360	0.000	0.310	6.0	210	0.45	3.3	0.2	344
JAN 9	-	-	-	-	-	-	-	-	-	2.2	0.2	757
JAN 16	0.034	0.014	0.045	0.550	0.006	0.360	6.5	180	0.55	1.6	0.8	411
JAN 23	0.036	0.007	0.020	0.320	0.003	0.410	5.5	230	0.55	-	-	208
JAN 30	0.012	0.003	0.015	0.380	0.001	0.310	6.5	224	0.60	1.9	1.5	220
FEB 6	0.015	0.003	0.020	0.290	0.001	0.350	6.0	224	0.60	1.5	0.3	74
FEB 13	0.014	0.003	0.020	0.230	0.003	0.370	6.5	226	0.60	0.9	0.7	16
FEB 20	0.006	0.005	0.015	0.160	0.002	0.390	6.0	221	0.60	0.3	0.1	1
FEB 27	0.010	0.003	0.015	0.160	0.002	0.350	6.0	226	0.55	0.5	0.2	7
MAR 6	-	-	-	-	-	-	-	-	-	0.4	0.1	0
MAR 13	0.006	0.003	0.025	0.180	0.002	0.330	6.0	223	0.50	0.2	0.1	10
MAR 20	0.015	0.005	0.025	0.295	0.003	0.380	6.5	230	0.50	0.6	0.6	0
MAR 28	0.069	0.041	0.105	0.475	0.015	1.290	7.5	259	0.80	1.1	-	35
APR 3	0.076	0.028	0.075	0.330	0.013	1.190	7.0	253	0.75	1.4	1.4	159
APR 10	0.012	0.003	0.025	0.220	0.003	0.370	6.5	240	0.75	1.1	0.4	190
APR 17	0.042	0.019	0.045	0.330	0.011	0.900	6.0	250	0.95	1.7	0.9	645
APR 24	0.021	0.003	0.005	0.205	0.006	0.900	7.0	246	0.70	3.4	0.0	398
MAY 1	0.050	0.007	0.070	0.465	0.025	0.710	7.0	266	0.70	4.3	0.0	1568
MAY 8	0.017	0.001	0.025	0.345	0.003	0.270	5.5	212	0.60	3.4	0.0	520
MAY 15	0.011	0.003	0.005	0.250	0.003	0.470	5.5	223	0.45	2.9	0.0	1985
MAY 23	0.009	0.003	0.015	0.220	0.003	0.290	6.5	229	0.50	3.3	0.0	2156
MAY 29	0.009	0.001	0.020	0.240	0.003	0.350	6.0	217	0.40	3.7	0.0	1997
JUN 5	0.007	0.002	0.015	0.225	0.005	0.300	5.5	214	0.40	3.4	0.2	2037
JUN 12	0.006	0.001	0.015	0.205	0.003	0.370	5.5	212	0.45	1.1	0.1	1396
JUN 19	0.010	0.002	0.025	0.255	0.005	0.250	5.5	213	0.35	1.5	0.7	622
JUN 26	0.008	0.001	0.020	0.245	0.003	0.290	5.5	209	0.25	1.4	0.3	826
JUL 4	0.014	0.003	0.020	0.255	0.003	0.230	5.5	212	0.55	3.4	0.6	1930
JUL 10	0.012	0.003	0.020	0.260	0.004	0.220	5.5	210	0.40	2.6	0.0	1605
JUL 17	0.019	0.001	0.020	0.370	0.003	0.260	5.0	211	0.65	2.8	0.0	1833
JUL 24	0.010	0.002	0.010	0.290	0.002	0.240	6.0	-	0.50	0.8	0.5	456
JUL 31	0.008	0.003	0.015	0.315	0.002	0.270	5.5	-	0.50	0.6	0.2	394
AUG 8	0.019	0.001	0.035	0.370	0.003	0.260	5.5	212	0.50	0.7	0.7	90
AUG 14	0.011	0.002	0.065	0.530	0.003	0.260	6.0	213	0.45	0.4	0.4	109
AUG 21	0.013	0.002	0.015	0.260	0.003	0.210	5.5	217	0.45	0.8	0.4	302
AUG 28	0.006	0.001	0.010	0.280	0.002	0.210	5.5	213	0.45	0.7	0.1	232
SEP 5	0.013	0.005	0.045	0.370	0.004	0.230	6.0	214	0.45	-	-	566
SEP 11	0.012	0.003	0.015	0.280	0.003	0.230	6.5	210	0.45	0.2	0.2	513
SEP 18	0.011	0.003	0.040	0.330	0.005	0.430	5.5	215	0.90	1.8	0.3	1128
SEP 25	0.008	0.002	0.005	0.215	0.003	0.220	5.5	208	0.60	1.8	0.8	1118
OCT 2	0.009	0.001	0.005	0.210	0.003	0.210	5.5	210	0.50	1.6	0.3	972
OCT 10	0.005	0.005	0.015	0.265	0.003	0.230	5.5	207	0.55	1.3	0.6	769
OCT 16	0.011	0.002	0.015	0.230	0.003	0.310	6.0	-	0.55	1.8	0.8	725
OCT 23	0.018	0.007	0.015	0.220	0.005	0.260	5.5	208	0.55	2.8	0.6	980
OCT 30	0.035	0.003	0.005	0.280	0.003	0.230	5.5	211	0.58	1.5	0.6	1294
NOV 6	0.030	0.002	0.005	0.205	0.003	0.250	5.5	209	0.56	1.6	1.0	813
NOV 14	0.008	0.002	0.020	0.305	0.004	0.250	5.5	212	0.56	1.4	0.3	855
NOV 20	0.017	0.003	0.015	0.265	0.003	0.230	5.5	205	0.60	-	-	1857
NOV 27	0.008	0.001	0.010	0.180	0.003	0.230	6.5	212	0.58	1.8	-	380
DEC 4	0.013	0.003	0.010	0.195	0.002	0.400	6.0	-	0.60	0.9	0.4	619
DEC 11	-	-	-	-	-	-	7.0	-	0.72	1.2	0.8	341
DEC 18	0.018	0.001	0.005	0.290	0.001	0.270	6.0	-	0.72	1.7	0.4	556
min.	0.005	0.001	0.005	0.160	0.000	0.210	5.0	180	0.25	0.2	0.0	0
max.	0.076	0.041	0.105	0.550	0.025	1.290	7.5	266	0.95	4.3	1.5	2156
mean	0.018	0.005	0.023	0.286	0.004	0.363	6.0	223	0.56	1.7	0.4	757
s.dev.	0.015	0.007	0.020	0.089	0.004	0.237	0.6	16	0.13	1.1	0.4	643
#samples	48	48	48	43	48	48	49	43	49	48	46	51

Appendix Ib - Cont'd...

Plant # 2 - LAKE HURON W.S.S. (GRAND BEND) 1979

	Tot.P	f.r.P	NH3	T.Kjl	NO2	NO3	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
JAN 2	0.013	0.002	0.010	0.275	0.001	0.230	6.0	216	0.72	2.3	0.6	524
JAN 8	0.010	0.001	0.010	0.300	0.001	0.500	7.0	226	0.74	2.3	1.2	337
JAN 15	0.011	0.001	0.005	0.275	0.001	0.320	6.5	219	0.66	2.0	0.5	626
JAN 22	0.013	0.002	0.005	0.245	0.000	0.370	7.5	220	0.70	2.1	0.8	727
JAN 29	0.011	0.002	0.010	0.215	0.001	0.470	8.0	236	0.78	1.5	0.4	641
FEB 5	0.008	0.002	0.015	0.215	0.001	0.370	7.5	234	0.70	1.2	0.4	343
FEB 12	0.008	0.002	0.020	0.210	0.001	0.420	7.0	237	0.78	0.6	0.1	194
FEB 19	0.009	0.001	0.015	0.250	0.001	0.450	8.0	236	0.80	0.6	0.2	72
FEB 26	0.008	0.001	0.015	0.205	0.001	0.430	7.0	236	0.76	0.6	0.4	111
MAR 5	0.005	0.003	0.020	0.235	0.001	0.410	6.5	229	0.70	1.0	0.5	145
MAR 12	0.080	0.012	0.085	0.610	0.011	1.000	7.0	233	0.82	0.9	0.7	455
MAR 19	0.014	0.002	0.010	0.260	0.002	0.320	6.0	214	0.68	1.1	0.4	447
MAR 27	0.013	0.002	0.015	0.305	0.003	0.600	6.0	223	0.64	1.7	0.7	470
APR 2	0.009	0.001	0.010	0.240	0.001	0.350	6.5	-	0.62	1.4	0.3	654
APR 9	0.081	0.022	0.125	0.340	0.008	1.000	6.5	235	0.80	2.4	2.1	-
APR 17	0.064	0.021	0.030	0.260	0.008	0.860	7.0	237	0.80	1.8	0.9	-
APR 23	0.019	0.007	0.015	0.260	0.004	0.590	6.0	224	0.68	2.2	2.2	312
APR 30	0.028	0.004	0.015	0.260	0.007	0.400	6.5	240	0.76	1.7	0.2	490
MAY 7	0.021	0.007	0.020	0.260	0.006	0.720	6.5	242	0.66	4.0	1.1	600
MAY 14	0.020	0.005	0.015	0.320	0.004	0.630	6.5	224	0.58	2.4	0.7	829
MAY 22	0.021	0.002	0.010	0.350	0.004	0.570	6.0	227	0.52	5.2	0.5	1015
MAY 28	0.021	0.003	0.005	0.230	0.001	0.390	6.0	214	0.56	1.0	0.4	878
JUN 4	0.014	0.006	0.035	0.410	0.003	0.360	6.5	216	1.30	11.0	0.5	3054
JUN 11	0.032	0.003	0.015	0.490	0.004	0.430	6.5	225	0.46	4.4	1.5	1485
JUN 18	0.030	0.003	0.010	0.310	0.003	0.370	6.0	226	0.38	3.3	1.1	1377
JUN 25	0.004	0.001	0.010	0.600	0.003	0.320	5.0	213	0.60	4.7	0.6	939
JUL 3	0.015	0.001	0.010	0.210	0.003	0.280	5.5	211	0.48	1.4	0.3	1362
JUL 9	0.004	0.002	0.010	0.160	0.002	0.320	5.5	211	0.44	0.8	0.2	523
JUL 16	0.010	0.001	0.015	0.180	0.002	0.300	5.0	215	0.38	0.6	0.4	502
JUL 23	0.008	0.002	0.020	0.110	0.003	0.300	6.0	-	0.34	0.4	0.3	314
JUL 30	0.013	0.005	0.040	0.270	0.002	0.300	6.0	214	0.52	1.9	1.1	-
AUG 7	0.016	0.006	0.035	0.300	0.004	0.300	5.5	228	0.60	1.3	-	772
AUG 13	0.009	0.001	0.015	0.290	0.003	0.300	5.5	216	0.42	2.4	1.5	333
AUG 20	0.013	0.008	0.010	0.190	0.003	0.300	6.5	215	0.50	1.0	0.3	363
AUG 27	0.006	0.000	0.005	0.180	0.002	0.300	7.0	212	0.44	1.3	0.6	126
SEP 4	0.006	0.000	0.030	0.180	0.002	0.240	6.0	212	0.44	0.8	0.3	456
SEP 10	0.007	0.000	0.015	0.170	0.003	0.260	5.5	210	0.54	1.1	0.3	322
SEP 17	0.032	0.001	0.010	0.360	0.002	0.230	6.0	214	0.56	1.7	0.5	602
SEP 24	0.008	0.000	0.015	0.280	0.002	0.230	6.5	217	0.52	1.4	0.5	573
OCT 1	0.005	0.010	0.005	0.190	0.002	0.230	5.5	212	0.48	-	-	695
OCT 9	0.028	0.002	0.025	0.300	0.002	0.220	6.0	217	0.48	2.0	0.3	1142
OCT 15	0.083	0.011	0.010	0.190	0.003	0.230	6.5	211	0.48	1.7	0.3	800
OCT 22	0.009	0.000	0.010	0.170	0.002	0.200	5.0	209	0.48	1.2	0.3	595
OCT 29	0.008	0.001	0.010	0.200	0.003	0.240	5.5	208	0.52	1.9	0.3	920
NOV 5	0.011	0.001	0.015	0.240	0.002	0.230	5.0	212	0.50	1.1	0.9	742
NOV 13	0.013	0.001	0.010	0.220	0.002	0.350	5.5	214	-	1.2	0.3	352
NOV 19	0.011	0.001	0.010	0.310	0.002	0.270	5.5	-	-	0.9	0.5	570
NOV 26	0.006	0.000	0.015	0.220	0.002	0.270	6.0	204	0.50	1.1	0.5	242
DEC 3	0.012	0.000	0.010	0.200	0.002	0.260	5.0	212	0.54	1.5	0.6	758
DEC 10	0.023	0.001	0.030	0.320	0.001	0.280	5.5	207	0.64	2.1	0.7	658
DEC 17	0.040	0.003	0.010	0.350	0.001	0.270	5.0	202	0.66	2.8	0.5	593
DEC 27	0.025	0.002	0.050	0.280	0.004	0.390	5.0	209	0.70	1.5	0.6	797
min.	0.004	0.000	0.005	0.110	0.000	0.200	5.0	202	0.34	0.4	0.1	72
max.	0.083	0.022	0.125	0.610	0.011	1.000	8.0	242	1.30	11.0	2.2	3054
mean	0.019	0.003	0.019	0.269	0.003	0.385	6.1	220	0.61	1.9	0.6	651
s.dev.	0.019	0.005	0.020	0.096	0.002	0.183	0.7	11	0.16	1.7	0.4	474
#samples	52	52	52	52	52	52	52	49	50	51	50	49

Appendix Ib - Cont'd....

Plant # 2 - LAKE HURON W.S.S. (GRAND BEND) 1981

	Tot.P	f.r.P	NH3	T.Kjl	NO2	NO3	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
JAN 5	0.022	0.004	0.020	0.350	0.000	0.320	6.5	211	0.68	1.1	0.5	337
JAN 12	0.013	0.003	0.025	0.210	0.001	0.430	8.0	226	0.64	0.7	0.4	366
JAN 19	0.014	0.004	0.035	0.590	0.001	0.420	7.0	220	0.74	0.4	0.3	-
JAN 26	0.010	0.001	0.035	0.270	0.001	0.320	6.5	217	0.72	0.5	0.2	219
FEB 2	0.011	0.002	0.005	0.190	0.000	0.280	5.5	210	0.68	1.6	0.4	362
FEB 9	0.005	0.002	0.015	0.370	0.001	0.260	8.0	208	0.66	1.5	0.2	264
FEB 16	0.036	0.025	0.000	0.210	0.001	0.320	6.0	219	0.66	0.7	0.2	314
FEB 23	0.050	0.018	0.000	0.240	0.002	0.460	5.5	214	0.68	1.2	0.2	398
MAR 2	0.062	0.022	0.035	0.560	0.016	3.700	8.0	286	1.28	0.8	0.3	394
MAR 9	0.011	0.002	0.005	0.310	0.001	0.420	6.0	212	0.64	0.9	0.3	641
MAR 16	-	-	-	-	-	-	-	-	-	1.3	0.3	1010
MAR 23	0.011	0.001	0.010	0.270	0.001	0.420	5.5	210	0.58	1.0	0.3	601
MAR 30	0.043	0.001	0.010	0.190	0.002	0.440	5.5	215	0.64	0.9	0.4	617
APR 6	0.028	0.002	0.005	0.240	0.002	0.320	5.5	210	0.52	0.7	0.4	1445
APR 13	0.008	0.003	0.015	0.350	0.001	0.290	6.5	210	0.64	1.4	0.2	753
APR 21	0.026	0.002	0.025	0.290	0.002	0.310	5.5	215	0.62	2.5	1.6	1310
APR 27	0.032	0.005	0.025	0.350	0.004	0.590	6.5	227	0.50	4.1	1.0	627
MAY 4	0.017	0.001	0.005	0.330	0.003	0.440	6.0	225	0.44	1.1	0.3	1193
MAY 11	0.019	0.002	0.010	0.240	0.002	0.390	6.0	223	0.50	1.9	0.5	857
MAY 19	0.015	0.002	0.000	0.210	0.003	0.630	7.5	236	0.38	1.3	0.3	907
MAY 25	0.014	0.001	0.005	0.250	0.004	0.800	8.0	239	0.30	1.8	0.6	340
JUN 1	0.020	0.000	0.005	0.250	0.002	0.380	6.0	204	0.44	2.0	0.4	-
JUN 8	0.029	0.001	0.010	0.550	0.002	0.370	7.0	218	0.82	4.2	0.9	1959
JUN 15	0.012	0.001	0.035	0.220	0.003	0.360	6.0	215	0.62	1.7	0.6	1421
JUN 22	0.013	0.002	0.020	0.350	0.002	0.310	5.5	217	0.34	3.5	0.4	1278
JUN 29	0.015	0.000	0.010	0.320	0.003	0.310	6.0	210	0.58	1.0	0.7	684
JUL 6	0.014	0.001	0.020	0.290	0.003	0.330	5.5	213	0.36	1.6	0.4	1378
JUL 13	0.008	0.001	0.005	0.260	0.002	0.290	5.5	217	0.36	0.4	0.2	223
JUL 20	0.004	0.001	0.010	0.210	0.002	0.270	5.5	214	0.40	0.5	0.5	212
JUL 27	0.017	0.002	0.020	0.270	0.002	0.280	6.0	237	0.42	0.7	0.1	404
AUG 4	0.009	0.005	0.040	0.300	0.003	0.260	6.0	213	0.42	0.4	0.2	-
AUG 11	0.011	0.003	0.020	0.370	0.002	0.270	6.0	-	0.40	0.2	0.2	133
AUG 17	0.013	0.002	0.055	0.480	0.003	0.260	5.5	212	0.42	-	-	475
AUG 24	0.009	0.002	0.110	0.660	0.002	0.250	6.0	211	0.46	0.6	0.2	767
AUG 31	-	-	-	-	-	-	-	-	-	0.5	0.2	379
SEP 8	-	-	-	-	-	-	-	-	-	0.9	0.4	204
SEP 14	0.020	0.005	0.020	0.240	0.004	0.540	6.0	220	0.66	0.7	0.1	163
SEP 21	0.023	0.004	0.020	0.380	0.003	0.370	6.0	222	0.60	2.1	0.3	785
SEP 28	0.042	0.007	0.025	0.520	0.004	0.430	6.0	224	0.62	2.4	0.3	908
OCT 5	0.044	0.015	0.025	0.540	0.004	0.490	8.0	237	0.78	1.0	0.3	182
OCT 13	0.026	0.006	0.030	0.440	0.004	0.360	6.0	217	0.60	0.4	0.2	75
OCT 19	0.080	0.008	0.020	0.560	0.004	0.350	6.0	215	0.64	3.3	0.2	-
OCT 26	0.018	0.007	0.015	0.580	0.003	0.390	6.0	218	0.66	0.9	0.3	216
NOV 2	0.016	0.005	0.010	0.370	0.005	0.800	6.5	244	0.76	1.5	0.4	235
NOV 9	0.037	0.009	0.010	0.220	0.004	0.330	5.5	209	0.64	1.0	0.3	-
NOV 16	0.022	0.005	0.040	0.320	0.003	0.500	6.5	226	0.62	1.1	0.4	200
NOV 23	0.033	0.006	0.015	0.310	0.002	0.330	6.5	214	0.70	2.3	0.5	486
NOV 30	0.030	0.005	0.030	0.360	0.003	0.450	6.0	220	0.68	1.7	0.6	307
DEC 7	0.012	0.001	0.030	0.260	0.002	0.340	6.0	203	0.64	1.3	0.6	583
DEC 14	0.021	0.007	0.015	0.280	0.003	0.450	7.0	221	0.68	0.6	0.2	-
DEC 22	-	-	-	-	-	-	-	-	-	-	-	125
DEC 30	0.018	0.001	0.055	0.300	0.002	0.280	5.5	204	0.60	-	-	486
min.	0.004	0.000	0.000	0.190	0.000	0.250	5.5	203	0.30	0.2	0.1	75
max.	0.080	0.025	0.110	0.660	0.016	3.700	8.0	286	1.28	4.2	1.6	1959
mean	0.022	0.004	0.021	0.338	0.003	0.456	6.2	219	0.59	1.3	0.4	592
s.dev.	0.015	0.005	0.019	0.123	0.002	0.494	0.8	14	0.16	0.9	0.3	435
#samples	48	48	48	48	48	48	48	47	48	49	49	46

Appendix Ic

Plant # 3 - LAMBTON AREA W.S.S. (SARNIA) 1976

	Tot.P	T.r.P	NH3	T.Kjl	NO2	NO3	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
FEB 9	0.010	0.006	0.005	0.150	0.003	0.280	5.5	-	0.85	1.3	-	-
FEB 16	0.003	0.001	0.005	0.105	0.001	0.250	5.5	-	0.60	1.0	-	-
FEB 23	0.002	0.001	0.010	0.065	0.001	0.230	7.0	-	0.55	0.1	0.1	-
MAR 1	0.009	0.005	0.005	0.300	0.001	0.270	5.5	-	1.00	0.3	-	-
MAR 8	0.020	0.009	0.010	0.185	0.005	0.240	6.0	-	0.85	2.4	0.6	-
MAR 15	0.013	0.004	0.005	0.185	0.001	0.750	5.0	-	0.85	1.5	1.1	195
MAR 22	0.012	0.007	0.005	0.115	0.001	0.220	6.5	-	0.60	1.4	0.6	-
MAR 29	0.004	0.004	0.005	0.215	0.001	0.220	5.5	-	0.95	0.9	0.4	192
APR 5	0.010	0.001	0.005	0.165	0.002	0.250	5.5	-	0.55	1.1	0.7	431
APR 12	0.005	0.005	0.005	0.185	0.003	0.230	5.5	-	0.85	-	-	292
APR 20	0.042	0.010	0.015	0.320	0.004	0.230	6.0	-	0.70	-	-	312
APR 26	0.008	0.003	0.005	0.195	0.004	0.270	5.5	-	0.30	2.7	-	239
MAY 3	-	-	-	-	-	-	-	-	-	4.0	-	211
MAY 10	0.006	0.005	0.005	0.165	0.003	0.250	6.0	-	0.50	2.0	-	-
MAY 17	0.013	0.007	0.005	0.165	0.039	0.230	6.0	-	0.40	1.8	-	-
MAY 25	0.009	0.009	0.005	0.215	0.010	0.230	6.0	-	0.30	1.8	-	774
MAY 31	0.009	0.003	0.010	0.205	0.009	0.130	6.5	-	0.45	2.3	-	742
JUN 7	0.006	0.002	0.020	0.200	0.004	0.170	6.5	-	0.40	1.3	-	576
JUN 14	0.007	0.003	0.150	0.255	0.003	0.150	6.5	-	0.30	3.0	-	349
JUN 21	0.008	0.001	0.005	0.125	0.003	0.200	6.0	-	0.50	3.2	-	365
JUN 29	0.007	0.003	0.005	0.210	0.003	0.290	5.0	-	0.45	1.5	-	532
JUL 6	0.040	0.003	0.015	0.240	0.004	0.190	5.5	-	0.30	0.7	-	365
JUL 12	0.017	0.009	0.030	0.200	0.003	0.170	5.5	-	0.30	0.2	-	214
JUL 20	0.024	0.003	0.015	0.175	0.003	0.100	6.0	-	0.35	0.7	-	90
JUL 26	0.009	0.002	0.010	0.165	0.002	0.180	6.0	-	0.60	0.4	-	-
AUG 3	0.005	0.002	0.005	0.165	0.002	0.150	6.5	-	0.95	1.0	-	-
AUG 9	0.011	0.003	0.010	0.165	0.004	0.210	7.0	-	0.35	-	-	76
AUG 16	0.114	0.009	0.045	0.230	0.005	0.140	6.5	-	0.45	1.0	-	195
AUG 23	0.007	0.006	0.010	0.175	0.002	0.120	6.0	-	0.40	1.2	-	95
AUG 30	0.010	0.003	0.005	0.230	0.003	0.120	6.0	-	0.55	1.4	-	228
SEP 7	0.011	0.001	0.015	0.260	0.002	0.170	6.0	-	0.40	1.2	-	160
SEP 13	0.007	0.005	0.005	0.185	0.003	0.170	6.0	-	0.35	0.6	-	70
SEP 20	0.007	0.003	0.015	0.185	0.003	0.180	6.0	-	0.65	0.7	-	-
SEP 27	0.030	0.005	0.010	0.170	0.003	0.150	6.5	-	0.45	0.8	-	-
OCT 4	0.007	0.003	0.010	0.165	0.005	0.160	6.0	-	0.35	0.9	-	-
OCT 12	0.011	0.005	0.015	0.180	0.004	0.170	6.5	-	0.40	1.3	-	-
OCT 18	0.007	0.004	0.010	0.205	0.001	0.200	5.5	-	0.45	1.6	-	179
NOV 1	0.018	0.003	0.006	0.220	0.002	0.218	5.8	210	0.30	2.1	-	129
NOV 8	-	-	-	-	-	-	-	-	-	-	-	138
NOV 15	0.007	0.003	0.010	0.220	0.005	0.180	5.5	-	0.30	1.5	-	-
NOV 29	0.006	0.001	0.005	0.170	0.003	0.240	5.0	-	0.45	1.6	-	-
DEC 13	0.009	0.003	0.010	0.225	0.001	0.250	5.5	-	0.50	1.8	-	236
DEC 27	-	-	-	-	-	-	-	-	-	-	-	414
min.	0.002	0.001	0.005	0.065	0.001	0.100	5.0	210	0.30	0.1	0.1	70
max.	0.114	0.010	0.150	0.320	0.039	0.750	7.0	210	1.00	4.0	1.1	774
mean	0.014	0.004	0.014	0.191	0.004	0.214	5.9	210	0.52	1.4	0.6	289
s.dev.	0.018	0.003	0.023	0.043	0.006	0.099	0.5	-	0.21	0.8	0.3	189
#samples	40	40	40	40	40	40	40	1	40	38	6	27

Appendix Ic - Cont'd....

Plant # 3 - LAMBTON AREA W.S.S. (SARNIA) 1977

	Tot.P	F.r.P	NH3	T.Kjl	NO2	NO3	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
JAN 4	0.009	0.002	0.005	0.130	0.002	0.210	6.5	-	0.80	1.5	-	491
JAN 11	-	-	-	-	-	-	-	-	-	-	-	1361
JAN 17	0.013	0.007	0.005	0.155	0.001	0.240	5.5	-	0.60	1.5	-	409
JAN 24	-	-	-	-	-	-	-	-	-	-	-	666
FEB 1	0.007	0.005	0.005	0.095	0.001	0.250	6.5	-	0.55	1.2	-	490
FEB 14	0.005	0.002	0.005	0.155	0.000	0.270	5.5	-	0.75	1.3	0.5	-
FEB 22	-	-	-	-	-	-	-	-	-	-	-	1000
FEB 28	0.011	0.008	0.010	0.155	0.001	0.240	6.5	-	0.65	1.9	1.1	-
MAR 7	0.006	0.001	0.008	0.160	0.001	0.214	5.9	-	0.50	1.2	0.4	1266
MAR 14	0.003	0.003	0.005	0.175	0.001	0.240	6.0	-	0.60	0.8	-	-
MAR 21	0.005	0.001	0.006	0.170	0.001	0.264	5.5	-	0.75	0.5	0.5	-
MAR 28	0.023	0.004	0.005	0.165	0.003	0.380	6.0	-	0.60	1.0	0.7	-
APR 4	0.007	0.001	0.006	0.160	0.001	0.281	5.9	215	0.60	-	-	1183
APR 12	0.006	0.002	0.006	0.260	0.001	0.254	5.7	205	0.60	-	-	809
APR 18	0.006	0.003	0.010	0.205	0.003	0.300	6.0	-	0.60	-	-	316
APR 25	0.006	0.001	0.006	0.160	0.002	0.238	5.8	213	0.60	-	-	699
MAY 2	0.009	0.005	0.005	0.175	0.003	0.260	5.5	-	0.40	-	-	612
MAY 9	-	0.006	0.015	-	0.003	0.260	7.0	-	0.45	-	-	647
MAY 16	0.007	0.004	0.050	0.200	0.004	0.280	5.0	-	0.35	-	-	2590
MAY 24	0.013	0.000	0.000	0.240	0.002	0.313	5.7	220	0.95	-	-	1139
MAY 30	0.006	0.003	0.015	0.160	0.003	0.290	6.0	-	0.35	-	-	-
JUN 6	0.002	0.001	0.012	0.160	0.002	0.268	6.0	215	0.40	-	-	597
JUN 13	-	0.003	0.015	-	0.004	0.290	6.0	-	0.30	-	-	-
JUN 20	0.005	0.006	0.004	0.180	0.002	0.228	5.8	210	0.35	-	-	-
JUN 27	0.023	0.019	0.015	0.240	0.003	0.240	5.5	-	0.35	-	-	1618
JUL 4	0.001	0.000	0.008	0.170	0.002	0.232	5.6	210	0.30	-	-	596
JUL 11	0.004	0.000	0.006	0.140	0.002	0.258	5.6	210	0.35	-	-	-
JUL 18	0.006	0.001	0.015	0.210	0.003	0.240	6.0	-	0.35	-	-	951
JUL 25	0.007	0.005	0.015	0.145	0.003	0.250	6.0	-	0.35	-	-	475
AUG 2	0.005	0.002	0.015	0.160	0.002	0.220	6.0	-	0.35	-	-	-
AUG 8	0.004	0.001	0.005	0.155	0.003	0.250	6.0	-	0.40	-	-	-
AUG 15	0.040	0.001	0.005	0.165	0.002	0.200	6.0	-	0.35	-	-	-
AUG 22	0.006	0.002	0.000	0.145	0.002	0.200	5.5	-	0.40	-	-	482
AUG 29	0.004	0.003	0.005	0.165	0.001	0.220	6.0	-	0.45	-	-	565
SEP 6	0.009	0.002	0.015	0.135	0.003	0.250	5.5	-	0.40	-	-	478
SEP 12	0.014	0.001	0.015	0.445	0.003	0.200	5.5	-	0.50	-	-	-
SEP 19	0.003	0.001	0.005	0.120	0.002	0.210	5.0	-	0.45	-	-	355
SEP 26	0.003	0.002	0.005	0.130	0.003	0.240	5.5	-	-	-	-	643
OCT 3	0.019	0.008	0.015	0.200	0.005	0.240	5.5	207	0.45	-	-	538
OCT 11	0.004	0.001	0.015	0.150	0.003	0.250	5.5	205	0.50	-	-	-
OCT 17	0.008	0.004	0.010	0.200	0.003	0.230	5.5	-	0.50	-	-	714
OCT 24	0.006	0.005	0.015	0.150	0.004	0.210	6.0	-	0.45	-	-	1082
OCT 31	0.002	0.002	0.020	0.100	0.005	0.220	6.0	-	0.40	-	-	-
NOV 7	0.004	0.001	0.015	0.150	0.003	0.260	5.5	-	0.40	1.3	0.0	2055
NOV 14	0.008	0.001	0.005	0.170	0.003	0.250	5.5	-	0.35	1.5	0.6	-
NOV 21	0.004	0.002	0.005	0.140	0.002	0.230	6.0	-	0.55	1.8	0.8	-
NOV 28	-	-	-	-	-	-	-	-	-	1.5	1.0	370
DEC 5	0.026	0.002	0.005	0.165	0.001	0.260	6.0	200	0.65	-	-	-
DEC 12	0.004	0.003	0.015	0.140	0.000	0.320	5.0	210	0.55	2.3	2.3	552
DEC 19	0.003	0.002	0.010	0.220	0.001	0.270	5.5	195	0.55	1.4	1.4	421
DEC 28	0.003	0.003	0.015	0.120	0.000	0.280	6.5	185	0.60	6.1	0.3	258
min.	0.001	0.000	0.000	0.095	0.000	0.200	5.0	185	0.30	0.5	0.0	258
max.	0.040	0.019	0.050	0.445	0.005	0.330	7.0	220	0.95	6.1	2.3	2590
mean	0.008	0.003	0.010	0.171	0.002	0.252	5.3	207	0.49	1.7	0.8	816
s.dev.	0.007	0.003	0.008	0.054	0.001	0.035	0.4	9	0.14	1.3	0.6	507
#samples	45	47	47	45	47	47	47	14	46	16	12	33

Appendix Ic - Cont'd....

Plant # 3 - LAMBTON AREA W.S.S. (SARNIA) 1978

	Tot.P	F.r.P	NH3	T.Kjl	NO2	NO3	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
JAN 3	0.007	0.003	0.015	0.200	0.000	0.280	6.0	205	0.50	1.3	0.4	143
JAN 9	-	-	-	-	-	-	-	-	-	1.1	0.1	232
JAN 16	0.002	0.001	0.015	0.135	0.001	0.250	6.0	-	0.45	0.6	0.1	-
JAN 23	0.006	0.002	0.015	0.150	0.001	0.290	6.0	216	0.50	1.1	0.6	109
JAN 30	0.008	0.003	0.010	0.180	0.001	0.360	5.5	225	0.50	1.5	0.4	167
FEB 6	-	-	-	-	-	-	-	-	-	1.1	0.4	-
FEB 13	0.006	0.005	0.020	0.145	0.001	0.290	6.0	213	0.50	0.7	0.2	-
FEB 20	0.004	0.004	0.015	0.125	0.001	0.290	-	224	-	0.4	0.2	329
FEB 27	0.003	0.002	0.015	0.130	0.001	0.290	5.0	209	0.50	0.7	0.4	156
MAR 6	-	-	-	-	-	-	-	-	-	0.8	0.5	104
MAR 13	0.002	0.001	0.015	0.145	0.003	0.270	5.5	208	0.55	0.5	0.0	-
MAR 20	0.007	0.004	0.015	0.165	0.001	0.260	5.5	216	0.50	1.5	0.6	-
MAR 28	0.007	0.006	0.005	0.145	0.000	0.210	5.5	208	0.55	0.8	0.5	153
APR 3	0.005	0.003	0.005	0.095	0.001	0.250	5.5	208	0.50	1.1	1.1	-
APR 10	0.006	0.005	0.020	0.150	0.003	0.260	5.5	204	0.70	0.6	0.5	101
APR 17	0.003	0.003	0.010	0.265	0.003	0.270	5.5	207	0.60	0.8	0.5	172
APR 24	0.022	0.008	0.020	0.105	0.007	0.420	6.0	214	0.60	1.3	0.4	471
MAY 1	0.004	0.003	0.005	0.140	0.003	0.330	6.0	210	0.55	1.2	0.2	408
MAY 8	0.004	0.001	0.015	0.150	0.003	0.260	5.0	206	0.60	1.0	0.3	421
MAY 15	0.003	0.003	0.005	0.180	0.003	0.180	5.0	204	0.45	1.0	0.3	1025
MAY 23	0.004	0.003	0.010	0.170	0.003	0.270	6.0	212	0.50	1.3	0.3	463
MAY 29	0.006	0.002	0.000	0.190	0.003	0.400	6.0	219	0.35	2.5	0.2	2432
JUN 6	0.003	0.002	0.010	0.200	0.004	0.360	5.5	220	0.35	1.4	0.3	1501
JUN 12	-	-	-	-	-	-	-	-	-	-	-	921
JUN 19	0.041	0.001	0.015	0.200	0.003	0.270	5.0	212	0.40	1.6	0.5	567
JUN 26	0.010	0.001	0.010	0.170	0.002	0.260	5.5	212	0.45	1.7	0.3	1540
JUL 4	0.003	0.003	0.020	0.165	0.003	0.230	5.5	222	0.45	0.9	0.4	340
JUL 10	0.008	0.005	0.025	0.175	0.004	0.360	5.5	213	0.40	-	-	343
JUL 17	0.002	0.002	0.005	0.155	0.004	0.290	6.0	219	0.45	0.5	0.4	147
JUL 24	0.004	0.001	0.015	0.145	0.003	0.240	5.5	211	0.45	0.5	0.5	219
JUL 31	0.005	0.003	0.005	0.165	0.003	0.250	5.5	214	0.50	0.7	0.3	184
AUG 8	0.011	0.002	0.010	0.190	0.003	0.260	5.5	211	0.50	0.7	0.7	180
AUG 14	0.004	0.001	0.005	0.160	0.004	0.250	5.5	218	0.45	0.5	0.4	171
AUG 21	0.004	0.001	0.015	0.165	0.004	0.260	5.5	212	0.45	0.7	0.4	440
AUG 28	0.005	0.003	0.015	0.150	0.003	0.210	5.5	208	0.45	0.8	0.4	234
SEP 5	0.003	0.002	0.025	0.160	0.005	0.200	5.5	207	0.50	0.8	0.5	141
SEP 11	0.006	0.003	0.015	0.200	0.003	0.230	5.5	203	0.45	0.6	0.3	-
SEP 18	0.007	0.001	0.015	0.130	0.003	0.250	5.0	211	0.65	1.1	0.3	185
SEP 25	0.005	0.003	0.005	0.165	0.002	0.230	5.5	203	0.65	1.1	0.8	72
OCT 2	0.014	0.004	0.010	0.220	0.004	0.220	5.0	236	0.55	-	-	366
OCT 10	0.005	0.003	0.005	0.140	0.004	0.220	5.5	205	0.50	-	-	232
OCT 16	0.007	0.003	0.025	0.190	0.004	0.250	5.5	207	0.50	1.3	0.7	447
OCT 23	0.019	0.004	0.015	0.190	0.005	0.200	5.5	206	0.60	1.1	0.5	445
OCT 30	0.007	0.003	0.010	0.130	0.005	0.200	5.0	205	0.56	0.9	0.4	369
NOV 6	0.002	0.002	0.005	0.125	0.003	0.250	6.0	204	0.36	0.8	0.4	835
NOV 14	0.023	0.003	0.015	0.145	0.005	0.230	5.0	211	0.60	0.9	0.5	939
NOV 20	0.006	0.003	0.010	0.180	0.000	0.210	10.5	199	0.60	0.2	0.2	235
NOV 27	0.007	0.003	0.005	0.125	0.003	0.210	6.5	207	0.66	1.1	1.0	271
DEC 4	0.005	0.000	0.000	0.135	0.002	0.260	5.5	201	0.60	0.8	0.5	292
DEC 11	0.004	0.001	0.005	0.160	0.001	0.280	5.5	203	0.66	0.8	0.7	350
DEC 18	0.011	0.003	0.005	0.150	0.001	0.260	6.0	196	0.76	1.3	0.5	530
DEC 27	0.003	0.002	0.005	0.135	0.001	0.240	8.0	197	0.68	1.3	0.6	447
min.	0.002	0.000	0.000	0.095	0.000	0.180	5.0	196	0.35	0.2	0.0	72
max.	0.041	0.008	0.025	0.265	0.007	0.420	10.5	236	0.76	2.5	1.1	2432
mean	0.007	0.003	0.012	0.161	0.003	0.263	5.7	210	0.52	1.0	0.4	452
s.dev.	0.007	0.001	0.006	0.031	0.002	0.051	0.9	8	0.09	0.4	0.2	455
#samples	43	43	43	43	43	43	47	47	47	43	43	45

Appendix Ic - Cont'd...

Plant # 3 - LAMBTON AREA W.S.S. (SARNIA) 1979

	Tot.P	T.r.P	NH3	T.Kjl	NO2	NO3	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
JAN 2	0.005	0.002	0.005	0.150	0.000	0.260	6.0	216	0.68	1.5	0.5	565
JAN 8	0.005	0.004	0.010	0.145	0.002	0.250	7.0	217	0.60	1.4	1.2	-
JAN 15	-	-	-	-	-	-	-	-	-	-	-	435
JAN 22	0.012	0.003	0.005	0.120	0.000	0.300	6.5	216	0.58	1.2	0.7	-
JAN 29	0.013	0.004	0.015	0.130	0.000	0.280	6.5	214	0.60	0.9	0.7	481
FEB 6	0.002	0.001	0.005	0.160	0.000	0.260	6.5	213	0.56	0.8	0.9	450
FEB 12	0.009	0.000	0.005	0.160	0.001	0.290	6.0	222	0.64	0.8	0.3	395
FEB 19	0.004	0.001	0.005	0.150	0.000	0.390	5.5	215	0.66	0.4	0.1	399
FEB 26	0.003	0.001	0.005	0.170	0.001	0.290	6.5	212	0.66	0.9	0.4	-
MAR 5	0.010	0.002	0.010	0.170	0.001	0.290	7.0	214	0.53	0.9	0.5	221
MAR 12	0.009	0.002	0.005	0.115	0.001	0.300	6.0	214	0.66	0.8	0.5	553
MAR 19	0.012	0.003	0.005	0.135	0.002	0.310	6.0	211	0.64	0.7	0.6	-
MAR 26	0.014	0.011	0.005	0.155	0.002	0.300	6.0	203	0.70	1.1	0.4	-
APR 2	0.006	0.002	0.010	0.165	0.002	0.300	5.5	211	0.66	0.9	0.6	313
APR 10	0.019	0.002	0.005	0.240	0.002	0.280	6.0	211	0.60	3.1	1.1	-
APR 17	0.006	0.000	0.010	0.170	0.002	0.230	5.5	213	0.48	1.8	0.5	579
APR 23	0.004	0.002	0.005	0.120	0.002	0.310	5.5	209	0.50	1.0	0.6	347
APR 30	0.010	0.002	0.005	0.180	0.003	0.370	5.5	210	0.60	0.2	0.1	-
MAY 7	0.011	0.001	0.005	0.220	0.003	0.410	5.5	223	0.64	-	-	525
MAY 14	0.000	0.002	0.005	0.160	0.003	0.430	5.5	211	0.64	0.9	0.5	266
MAY 22	0.001	0.001	0.010	0.220	0.004	0.460	6.0	219	0.46	1.4	0.7	-
MAY 28	0.009	0.001	0.005	0.200	0.002	0.270	5.5	207	0.52	0.9	0.4	898
JUN 4	0.001	0.001	0.005	0.130	0.003	0.460	5.0	214	0.54	2.4	1.1	1170
JUN 11	0.012	0.002	0.005	0.130	0.003	0.340	5.0	212	0.48	1.2	0.5	725
JUN 18	0.014	0.001	0.005	0.200	0.003	0.300	6.0	209	0.54	2.9	0.3	1164
JUN 25	0.002	0.000	0.000	0.130	0.003	0.290	5.5	208	0.44	1.2	0.9	-
JUL 3	0.008	0.001	0.010	0.140	0.003	0.330	5.0	208	0.38	0.8	0.4	903
JUL 9	0.000	0.020	0.010	0.130	0.003	0.300	6.0	223	0.36	0.6	0.1	950
JUL 16	0.011	0.000	0.005	0.130	0.002	0.270	5.5	208	0.34	0.7	0.4	-
JUL 23	0.006	0.001	0.010	0.180	0.003	0.270	5.5	210	0.38	0.4	0.3	512
JUL 30	0.005	0.001	0.005	0.190	0.002	0.290	5.5	211	0.40	0.7	0.5	283
AUG 7	-	-	-	-	-	-	-	-	-	-	-	224
AUG 13	0.003	0.001	0.010	0.170	0.003	0.230	6.0	221	0.40	0.7	0.5	474
AUG 20	0.006	0.001	0.005	0.140	0.003	0.280	7.0	203	0.44	0.5	0.2	-
AUG 27	0.002	0.000	0.005	0.110	0.002	0.250	6.0	203	0.46	0.6	0.3	443
SEP 4	0.001	0.001	0.000	0.120	0.002	0.360	6.5	213	0.48	0.5	0.6	279
SEP 10	0.004	0.004	0.015	0.140	0.006	0.260	6.0	212	0.48	0.9	0.3	391
SEP 17	0.006	0.001	0.005	0.150	0.001	0.220	5.5	210	0.48	1.1	0.8	-
SEP 24	0.006	0.002	0.005	0.170	0.002	0.210	11.0	212	0.54	1.1	0.4	703
OCT 1	0.008	0.002	0.010	0.150	0.003	0.230	5.5	214	0.48	0.7	0.3	540
OCT 9	0.007	0.000	0.005	0.140	0.003	0.220	5.0	219	0.44	1.1	0.2	483
OCT 15	0.014	0.002	0.005	0.240	0.003	0.230	5.5	208	0.50	1.2	0.3	253
OCT 22	0.005	0.002	0.005	0.140	0.003	0.220	6.0	207	0.50	0.7	0.2	431
OCT 29	0.006	0.001	0.015	0.190	0.003	0.240	5.0	206	0.54	1.5	0.4	264
NOV 5	0.002	0.001	0.005	0.150	0.002	0.240	5.0	207	0.52	0.9	0.7	452
NOV 13	0.059	0.001	0.005	0.350	0.003	0.230	8.0	205	0.52	0.8	0.4	-
NOV 19	0.001	0.000	0.005	0.150	0.003	0.240	5.5	210	0.52	1.0	0.7	-
NOV 26	0.002	0.001	0.010	0.130	0.003	0.280	5.5	202	0.54	0.9	0.5	-
DEC 3	0.010	0.003	0.015	0.200	0.002	0.390	5.0	206	0.64	1.2	0.7	263
DEC 10	0.017	0.001	0.005	0.210	0.000	0.290	5.5	201	0.64	-	-	419
DEC 17	-	-	-	-	-	-	-	-	-	-	-	372
DEC 31	0.003	0.002	0.005	0.170	0.001	0.270	5.0	204	0.70	1.4	0.6	-
min.	0.000	0.000	0.000	0.110	0.000	0.210	5.0	201	0.34	0.2	0.1	221
max.	0.059	0.020	0.015	0.350	0.006	0.460	11.0	223	0.70	3.1	1.2	1170
mean	0.008	0.002	0.007	0.164	0.002	0.294	5.9	211	0.54	1.1	0.5	511
S.dev.	0.009	0.003	0.003	0.043	0.001	0.060	1.0	5	0.10	0.6	0.3	249
#samples	49	49	49	49	49	49	49	49	49	47	47	36

Appendix Ic - Cont'd...

Plant # 3 - LAMBTON AREA W.S.S. (SARNIA) 1980

	Tot.P	F.r.P	NH3	T.Kjl	NO2	NO3	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
JAN 7	-	-	-	-	-	-	-	-	-	-	-	622
JAN 14	0.005	0.002	0.020	0.150	0.001	0.280	5.5	207	0.66	1.0	0.3	250
JAN 21	0.005	0.000	0.000	0.130	0.000	0.280	6.5	209	0.68	1.3	0.3	493
JAN 28	0.001	0.000	0.000	0.130	0.001	0.280	5.5	209	0.70	0.9	0.4	403
FEB 4	-	-	-	-	-	-	-	-	-	1.0	0.0	286
FEB 11	-	-	-	-	-	-	-	-	-	-	-	483
FEB 18	0.007	0.001	0.005	0.150	0.000	0.290	6.0	211	0.64	1.0	0.4	-
FEB 25	0.002	0.000	0.005	0.140	0.000	0.280	5.5	207	0.70	0.5	0.1	-
MAR 3	0.004	0.000	0.005	0.150	0.001	0.290	6.0	209	0.70	1.3	0.4	-
MAR 10	0.007	0.001	0.005	0.110	0.000	0.300	5.5	207	0.70	0.5	0.3	-
MAR 17	0.003	0.001	0.005	0.160	0.001	0.290	5.5	214	0.70	-	-	-
MAR 24	-	-	-	-	-	-	-	-	-	-	-	-
MAR 31	0.002	0.002	0.000	0.130	0.001	0.310	5.5	209	0.68	1.0	0.4	-
APR 8	0.007	0.001	0.005	0.120	0.002	0.300	5.5	204	0.66	0.8	0.5	452
APR 14	0.005	0.001	0.000	0.130	0.002	0.290	5.5	206	0.70	1.1	0.4	475
APR 21	0.004	0.002	0.005	0.120	0.001	0.310	5.5	205	0.66	1.0	0.4	809
APR 28	0.013	0.002	0.010	0.200	0.001	0.270	5.5	207	0.64	1.7	1.1	-
MAY 5	0.009	0.002	0.010	0.160	0.002	0.440	6.0	211	0.60	0.8	0.2	735
MAY 12	0.008	0.001	0.020	0.150	0.002	0.270	5.5	207	0.60	0.3	0.4	523
MAY 20	0.006	0.004	0.010	0.100	0.002	0.310	6.0	206	0.54	0.8	0.3	451
MAY 26	0.007	0.002	0.005	0.150	0.003	0.280	6.0	210	0.52	1.3	0.1	-
JUN 2	0.009	0.002	0.005	0.140	0.002	0.280	6.0	210	0.92	0.9	0.4	1311
JUN 9	0.030	0.002	0.005	0.170	0.003	0.280	5.5	206	0.14	1.7	0.5	1497
JUN 16	0.007	0.003	0.015	0.190	0.003	0.330	5.5	207	0.44	1.5	0.4	1147
JUN 23	0.007	0.001	0.005	0.190	0.002	0.280	6.5	208	0.40	1.2	0.4	640
JUN 30	0.002	0.001	0.010	0.120	0.002	0.270	7.0	210	0.36	0.5	0.3	-
JUL 7	0.007	0.003	0.010	0.160	0.002	0.280	6.5	208	0.34	0.5	0.3	-
JUL 14	0.005	0.001	0.010	0.170	0.002	0.280	7.0	210	0.30	1.1	0.7	293
JUL 21	0.004	0.002	0.015	0.160	0.003	0.360	7.0	215	0.32	0.6	0.5	363
JUL 28	0.005	0.002	0.015	0.160	0.002	0.280	6.5	210	0.34	0.6	0.4	86
AUG 5	0.003	0.002	0.010	0.160	0.002	0.250	6.0	208	0.33	-	-	263
AUG 11	0.007	0.001	0.005	0.180	0.002	0.240	7.0	210	0.34	0.8	0.3	-
AUG 18	0.011	0.001	0.005	0.220	0.002	0.230	5.5	212	0.42	0.7	0.4	124
AUG 25	0.007	0.003	0.005	0.150	0.002	0.260	6.0	-	0.40	0.7	0.2	132
SEP 2	0.007	0.000	0.000	0.160	0.002	0.310	6.5	205	0.46	1.1	0.5	374
SEP 8	0.008	0.001	0.000	0.150	0.002	0.230	6.0	208	0.50	0.6	0.3	612
SEP 15	0.009	0.001	0.000	0.180	0.002	0.230	8.0	203	0.54	1.8	0.3	400
SEP 22	0.007	0.001	0.005	0.160	0.002	0.220	7.5	214	0.56	0.7	0.3	417
SEP 29	0.004	0.001	0.005	0.150	0.002	0.230	6.5	214	0.58	3.3	1.5	-
OCT 6	-	-	-	-	-	-	-	-	-	0.9	0.4	230
OCT 14	0.008	0.000	0.005	0.170	0.002	0.240	6.5	206	0.60	1.2	0.8	-
OCT 20	0.007	0.001	0.005	0.150	0.002	0.240	5.5	205	0.58	0.7	0.3	350
OCT 27	0.009	0.001	0.005	0.170	0.002	0.240	6.0	203	0.54	1.2	0.4	232
NOV 3	0.005	0.001	0.005	0.140	0.002	0.240	6.0	206	0.56	0.6	0.4	265
NOV 10	0.011	0.001	0.005	0.190	0.004	0.250	6.0	199	0.62	1.2	0.7	-
NOV 17	0.005	0.001	0.005	0.150	0.002	0.300	6.0	207	0.62	1.0	0.4	306
NOV 24	0.005	0.001	0.000	0.180	0.002	0.250	8.0	206	0.58	1.1	0.4	-
DEC 1	0.094	0.002	0.005	0.570	0.002	0.250	7.0	210	0.78	1.4	0.5	585
DEC 8	0.030	0.010	0.005	0.190	0.003	0.250	6.5	209	0.68	2.3	2.1	539
DEC 15	0.012	0.001	0.005	0.180	0.001	0.250	6.5	206	0.60	2.3	1.1	302
DEC 22	0.008	0.001	0.005	0.190	0.000	0.280	5.5	202	0.70	1.5	0.6	229
DEC 29	0.009	0.001	0.010	0.180	0.002	0.290	6.5	205	0.68	1.0	0.2	-
min.	0.001	0.000	0.000	0.100	0.000	0.220	5.5	199	0.14	0.5	0.0	86
max.	0.094	0.010	0.020	0.570	0.004	0.440	8.0	215	0.92	3.3	2.1	1497
mean	0.009	0.002	0.006	0.165	0.002	0.277	6.2	208	0.56	1.1	0.5	479
s.dev.	0.014	0.002	0.005	0.065	0.001	0.038	0.7	3	0.15	0.5	0.4	317
#samples	47	47	47	47	47	47	47	46	47	47	47	35

Appendix Ic - Cont'd....

Plant # 3 - LAMBTON AREA W.S.S. (SARNIA) 1981

	Tot.P	f.r.P	NH3	T.Kjl	NO2	NO3	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
JAN 5	0.012	0.004	0.010	0.170	0.001	0.290	5.5	210	0.72	1.1	0.3	-
JAN 12	-	0.007	0.030	-	0.000	0.300	6.5	198	0.68	0.9	0.3	157
JAN 19	0.007	0.002	0.005	0.200	0.001	0.330	6.5	209	0.74	0.6	0.2	176
JAN 26	0.009	0.002	0.005	0.017	0.000	0.270	7.5	212	-	1.1	0.3	-
FEB 2	-	-	-	-	-	-	-	-	-	-	-	259
FEB 9	0.005	0.002	0.005	0.180	0.000	0.260	6.0	212	0.60	1.2	0.3	366
FEB 16	0.005	0.001	0.005	0.120	0.001	0.270	15.5	210	0.66	0.7	0.3	-
FEB 23	0.021	0.001	0.000	0.180	0.000	0.280	5.0	205	0.70	1.1	0.2	269
MAR 2	0.014	0.001	0.005	0.160	0.001	0.290	5.5	202	0.70	1.0	0.3	625
MAR 9	0.006	0.002	0.000	0.150	0.000	0.300	5.0	204	0.70	0.6	0.5	310
MAR 16	0.010	0.003	0.010	0.170	0.000	0.300	6.0	215	0.60	0.7	0.6	689
MAR 23	0.005	0.002	0.005	0.160	0.002	0.320	5.0	210	0.60	1.2	0.5	266
MAR 30	0.006	0.002	0.035	0.150	0.001	0.270	5.5	208	0.66	0.7	0.4	290
APR 6	0.005	0.001	0.005	0.100	0.000	0.280	6.5	210	0.78	0.1	-	-
APR 13	0.005	0.001	0.000	0.150	0.001	0.280	5.5	205	0.72	0.7	0.2	227
APR 21	0.012	0.001	0.010	0.180	0.002	0.280	5.5	210	0.64	1.1	0.8	325
APR 27	0.005	0.002	0.005	0.160	0.020	0.330	5.5	216	0.66	0.7	0.3	-
MAY 4	0.004	0.001	0.000	0.160	0.002	0.330	5.5	209	0.60	0.6	0.2	-
MAY 11	0.020	0.001	0.005	0.340	0.002	0.270	9.0	214	0.72	3.0	0.5	576
MAY 19	0.007	0.002	0.000	0.160	0.002	0.320	6.5	217	0.44	1.6	0.2	-
MAY 25	0.007	0.001	0.030	0.190	0.002	0.330	6.5	215	0.38	1.7	0.5	-
JUN 1	-	-	-	-	-	-	-	-	-	-	-	-
JUN 8	0.005	0.003	0.000	0.160	0.003	0.300	6.0	209	0.50	-	-	229
JUN 15	0.007	0.001	0.005	0.170	0.002	0.320	5.0	210	0.38	0.8	0.4	-
JUN 22	0.006	0.001	0.005	0.130	0.000	0.300	7.5	217	0.42	0.3	-	152
JUN 29	-	-	-	-	-	-	-	-	-	0.6	0.3	152
JUL 6	0.007	0.002	0.010	0.160	0.002	0.260	5.5	208	0.38	0.3	-	101
JUL 13	0.003	0.001	0.005	0.140	0.003	0.380	7.0	210	0.42	0.3	0.3	33
JUL 20	0.005	0.001	0.015	0.140	0.002	0.270	5.5	211	0.34	0.3	0.3	68
JUL 27	0.006	0.001	0.005	0.190	0.003	0.270	6.0	208	0.42	0.9	0.3	67
AUG 4	0.004	0.001	0.000	0.130	0.002	0.270	7.5	209	0.48	0.3	0.3	57
AUG 10	0.009	0.004	0.000	0.150	0.002	0.260	5.5	208	0.46	0.3	0.4	-
AUG 17	0.006	0.002	0.005	0.190	0.002	0.270	6.0	209	0.48	2.3	0.3	-
AUG 24	0.005	0.003	0.025	0.160	0.004	0.250	6.5	207	0.50	0.5	0.2	52
AUG 31	0.007	0.002	0.000	0.160	0.002	0.260	5.5	211	0.50	0.7	0.2	-
SEP 8	0.004	0.001	0.005	0.130	0.002	0.240	5.5	208	0.48	1.0	0.9	-
SEP 14	0.005	0.001	0.005	0.160	0.002	0.230	5.5	203	0.50	1.4	1.0	134
SEP 22	0.003	0.002	0.005	0.160	0.002	0.250	5.5	207	0.50	1.0	0.1	-
SEP 29	0.006	0.002	0.050	0.190	0.003	0.240	6.0	208	0.52	1.7	0.6	434
OCT 6	0.008	0.003	0.005	0.160	0.002	0.260	5.5	206	0.54	0.6	0.3	-
OCT 13	0.014	0.007	0.010	0.170	0.003	0.400	6.0	215	0.64	0.6	0.3	-
OCT 20	0.009	0.002	0.005	0.200	0.002	0.260	5.5	206	0.58	1.7	0.7	543
OCT 27	0.003	0.003	0.005	0.150	0.002	0.250	5.5	205	0.54	0.8	0.3	883
NOV 3	0.004	0.002	0.005	0.150	0.002	0.280	5.0	206	0.56	0.7	0.4	-
NOV 10	0.011	0.001	0.005	0.190	0.003	0.260	5.5	204	0.62	2.2	0.5	-
NOV 17	0.008	0.002	0.000	0.190	0.002	0.320	5.5	210	0.58	1.0	0.3	292
NOV 24	0.008	0.000	0.000	0.170	0.001	0.230	5.5	204	0.62	1.1	0.3	-
NOV 30	0.006	0.003	0.005	0.150	0.002	0.270	5.0	205	0.64	0.9	0.3	328
DEC 8	0.006	0.000	0.000	0.140	0.000	0.260	6.0	201	0.64	1.0	0.5	299
DEC 15	0.007	0.000	0.000	0.170	0.000	0.250	6.0	203	0.62	1.1	0.3	700
DEC 21	0.006	0.001	0.005	0.150	0.001	0.250	5.5	204	0.58	1.3	0.2	617
DEC 29	0.009	0.001	0.005	0.140	0.005	0.260	5.5	198	0.70	0.7	0.3	-
min.	0.003	0.000	0.000	0.017	0.000	0.230	5.0	198	0.34	0.1	0.1	33
max.	0.021	0.007	0.050	0.340	0.020	0.400	15.5	217	0.78	3.0	1.0	883
mean	0.007	0.002	0.006	0.161	0.002	0.282	6.1	208	0.57	1.0	0.4	312
s.dev.	0.004	0.001	0.009	0.040	0.003	0.035	1.6	4	0.11	0.6	0.2	222
#samples	48	49	49	48	49	49	49	49	43	42	46	31

Plant # 1 - GODERICH W.T.P. 1976

	Tot.P	f.r.P	NH3	T.Kjl	NO2	NO3	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
min.	0.009	0.001	0.000	0.185	0.001	0.000	5.0	-	0.25	0.5	0.6	30
max.	0.205	0.027	0.100	1.150	0.017	2.600	27.0	-	2.40	25.0	8.4	3572
mean	0.042	0.009	0.027	0.372	0.006	0.567	9.4	-	0.88	3.6	1.8	445
s.dev.	0.035	0.007	0.020	0.187	0.004	0.569	4.5	-	0.50	4.1	2.5	556
#samples	45	45	45	45	45	45	45	0	45	45	9	43

Plant # 1 - GODERICH W.T.P. 1977

	Tot.P	f.r.P	NH3	T.Kjl	NO2	NO3	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
min.	0.006	0.000	0.005	0.120	0.001	0.000	5.5	216	0.20	0.4	0.1	11
max.	0.208	0.113	0.625	1.360	0.025	3.520	21.5	379	1.75	7.6	4.4	2319
mean	0.052	0.014	0.054	0.404	0.005	0.616	9.6	275	0.63	2.1	1.3	327
s.dev.	0.047	0.020	0.105	0.268	0.004	0.648	3.8	52	0.33	2.3	1.3	394
#samples	44	44	44	45	44	44	45	16	44	19	16	43

Plant # 1 - GODERICH W.T.P. 1978

	Tot.P	f.r.P	NH3	T.Kjl	NO2	NO3	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
min.	0.005	0.001	0.003	0.165	0.001	0.004	5.0	207	0.05	0.3	0.0	14
max.	0.098	0.100	0.120	0.720	0.071	3.320	25.0	510	1.45	10.0	2.5	1993
mean	0.028	0.010	0.031	0.307	0.007	0.621	9.2	264	0.66	2.0	0.6	440
s.dev.	0.023	0.016	0.028	0.150	0.011	0.667	3.8	67	0.23	1.8	0.5	496
#samples	47	46	46	47	46	46	47	47	45	48	48	49

Plant # 1 - GODERICH W.T.P. 1979

	Tot.P	f.r.P	NH3	T.Kjl	NO2	NO3	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
min.	0.001	0.000	0.000	0.120	0.001	0.210	5.5	210	0.36	0.2	0.2	23
max.	0.252	0.043	0.195	1.100	0.090	4.200	32.0	494	2.04	6.3	3.0	2037
mean	0.037	0.008	0.026	0.313	0.006	0.857	10.0	264	0.73	1.7	0.8	335
s.dev.	0.045	0.010	0.034	0.203	0.013	0.860	4.5	55	0.37	1.2	0.5	399
#samples	49	49	49	49	49	49	49	50	49	47	46	51

Plant # 1 - GODERICH W.T.P. 1980

	Tot.P	f.r.P	NH3	T.Kjl	NO2	NO3	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
min.	0.006	0.001	0.005	0.140	0.001	0.210	5.5	211	0.26	0.1	0.1	14
max.	0.182	0.086	0.265	1.300	0.017	2.700	17.5	354	1.48	8.1	2.2	1874
mean	0.035	0.008	0.023	0.329	0.004	0.726	9.7	255	0.66	1.7	0.6	376
s.dev.	0.040	0.012	0.037	0.249	0.003	0.583	3.3	38	0.28	1.3	0.4	408
#samples	51	51	51	51	51	51	51	51	51	51	51	52

Plant # 1 - GODERICH W.T.P. 1981

	Tot.P	f.r.P	NH3	T.Kjl	NO2	NO3	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
min.	0.002	0.000	0.000	0.140	0.000	0.240	5.5	200	0.00	0.3	0.1	11
max.	0.850	0.056	0.065	1.430	0.035	5.500	21.5	473	2.06	8.6	1.9	2715
mean	0.055	0.006	0.013	0.372	0.004	0.989	9.9	266	0.71	1.7	0.6	389
s.dev.	0.121	0.009	0.012	0.260	0.005	1.062	3.9	60	0.36	1.8	0.5	498
#samples	50	50	50	50	50	50	50	50	50	48	47	51

Plant # 2 - LAKE HURON W.S.S. (GRAND BEND) 1976

	Tot.P	f.r.P	NH3	T.Kjl	NO2	NO3	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
min.	0.005	0.000	0.005	0.070	0.000	0.040	5.0	-	0.30	0.2	0.2	245
max.	0.132	0.017	0.175	0.910	0.019	0.580	8.0	-	2.90	4.8	1.6	3950
mean	0.026	0.005	0.022	0.302	0.003	0.245	6.5	-	0.77	1.4	0.6	1109
s.dev.	0.026	0.004	0.035	0.190	0.003	0.102	0.7	-	0.46	1.0	0.5	730
#samples	44	44	45	45	45	45	45	0	43	45	6	52

Plant # 2 - LAKE HURON W.S.S. (GRAND BEND) 1977

	Tot.P	f.r.P	NH3	T.Kjl	NO2	NO3	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
min.	0.007	0.001	0.000	0.145	0.000	0.020	5.0	204	0.25	0.2	0.1	11
max.	0.063	0.020	0.160	1.230	0.011	2.800	18.5	246	1.30	3.6	1.2	2023
mean	0.025	0.005	0.041	0.528	0.004	0.414	6.8	217	0.48	1.3	0.6	652
s.dev.	0.014	0.003	0.036	0.267	0.002	0.469	2.2	10	0.16	1.0	0.3	464
#samples	52	52	52	52	52	52	52	18	52	19	13	50

Plant # 2 - LAKE HURON W.S.S. (GRAND BEND) 1978

	Tot.P	f.r.P	NH3	T.Kjl	NO2	NO3	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
min.	0.005	0.001	0.005	0.160	0.000	0.210	5.0	180	0.25	0.2	0.0	0
max.	0.076	0.041	0.105	0.550	0.025	1.290	7.5	266	0.95	4.3	1.5	2156
mean	0.018	0.005	0.023	0.286	0.004	0.368	6.0	220	0.56	1.7	0.4	757
s.dev.	0.015	0.007	0.020	0.089	0.004	0.237	0.6	16	0.13	1.1	0.4	643
#samples	48	48	48	48	48	48	49	43	49	48	46	51

Plant # 2 - LAKE HURON W.S.S. (GRAND BEND) 1979

	Tot.P	f.r.P	NH3	T.Kjl	NO2	NO3	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
min.	0.004	0.000	0.005	0.110	0.000	0.200	5.0	202	0.34	0.4	0.1	72
max.	0.083	0.022	0.125	0.610	0.011	1.000	8.0	242	1.30	11.0	2.2	3054
mean	0.019	0.003	0.019	0.269	0.003	0.385	6.1	220	0.61	1.9	0.6	651
s.dev.	0.019	0.005	0.020	0.096	0.002	0.183	0.7	11	0.16	1.7	0.4	474
#samples	52	52	52	52	52	52	52	49	50	51	50	49

Plant # 2 - LAKE HURON W.S.S. (GRAND BEND) 1980

	Tot.P	f.r.P	NH3	T.Kjl	NO2	NO3	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
min.	0.001	0.000	0.000	0.180	0.000	0.210	5.5	204	0.16	0.4	0.0	113
max.	0.045	0.011	0.075	0.790	0.005	1.730	9.0	245	0.84	5.3	2.8	2131
mean	0.019	0.003	0.019	0.312	0.002	0.422	6.6	216	0.58	1.9	0.5	715
s.dev.	0.010	0.003	0.016	0.117	0.001	0.263	0.9	8	0.15	1.2	0.5	451
#samples	50	50	50	50	50	50	50	31	50	49	48	48

Plant # 2 - LAKE HURON W.S.S. (GRAND BEND) 1981

	Tot.P	f.r.P	NH3	T.Kjl	NO2	NO3	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
min.	0.004	0.000	0.000	0.190	0.000	0.250	5.5	203	0.30	0.2	0.1	75
max.	0.080	0.025	0.110	0.660	0.016	3.700	8.0	286	1.28	4.2	1.6	1959
mean	0.022	0.004	0.021	0.338	0.003	0.456	6.2	219	0.59	1.3	0.4	592
s.dev.	0.015	0.005	0.019	0.123	0.002	0.494	0.8	14	0.16	0.9	0.3	435
#samples	48	48	48	48	48	48	48	47	48	49	49	46

Plant # 3 - LAMBTON AREA W.S.S. (SARNIA) 1976

	Tot.P	f.r.P	NH3	T.Kjl	NO2	NO3	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
min.	0.002	0.001	0.005	0.065	0.001	0.100	5.0	210	0.30	0.1	0.1	70
max.	0.114	0.010	0.150	0.320	0.039	0.750	7.0	210	1.00	4.0	1.1	774
mean	0.014	0.004	0.014	0.191	0.004	0.214	5.9	210	0.52	1.4	0.6	289
s.dev.	0.018	0.003	0.023	0.048	0.006	0.099	0.5	-	0.21	0.8	0.3	189
#samples	40	40	40	40	40	40	40	1	40	38	6	27

Plant # 3 - LAMBTON AREA W.S.S. (SARNIA) 1977

	Tot.P	f.r.P	NH3	T.Kjl	NO2	NO3	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
min.	0.001	0.000	0.000	0.095	0.000	0.200	5.0	185	0.30	0.5	0.0	258
max.	0.040	0.019	0.050	0.445	0.005	0.380	7.0	220	0.95	6.1	2.3	2590
mean	0.008	0.003	0.010	0.171	0.002	0.252	5.8	207	0.49	1.7	0.8	816
s.dev.	0.007	0.003	0.008	0.054	0.001	0.035	0.4	9	0.14	1.3	0.6	507
#samples	45	47	47	45	47	47	47	14	46	16	12	33

Plant # 3 - LAMBTON AREA W.S.S. (SARNIA) 1978

	Tot.P	f.r.P	NH3	T.Kjl	NO2	NO3	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
min.	0.002	0.000	0.000	0.095	0.000	0.180	5.0	196	0.35	0.2	0.0	72
max.	0.041	0.008	0.025	0.265	0.007	0.420	10.5	236	0.76	2.5	1.1	2432
mean	0.007	0.003	0.012	0.161	0.003	0.263	5.7	210	0.52	1.0	0.4	452
s.dev.	0.007	0.001	0.006	0.031	0.002	0.051	0.9	8	0.09	0.4	0.2	455
#samples	48	48	48	48	48	48	47	47	47	48	48	45

Plant # 3 - LAMBTON AREA W.S.S. (SARNIA) 1979

	Tot.P	f.r.P	NH3	T.Kjl	NO2	NO3	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
min.	0.000	0.000	0.000	0.110	0.000	0.210	5.0	201	0.34	0.2	0.1	221
max.	0.059	0.020	0.015	0.360	0.006	0.460	11.0	223	0.70	3.1	1.2	1170
mean	0.008	0.002	0.007	0.164	0.002	0.294	5.9	211	0.54	1.1	0.5	511
s.dev.	0.009	0.003	0.003	0.043	0.001	0.060	1.0	5	0.10	0.6	0.3	249
#samples	49	49	49	49	49	49	49	49	49	47	47	36

Plant # 3 - LAMBTON AREA W.S.S. (SARNIA) 1980

	Tot.P	f.r.P	NH3	T.Kjl	NO2	NO3	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
min.	0.001	0.000	0.000	0.100	0.000	0.220	5.5	199	0.14	0.5	0.0	86
max.	0.094	0.010	0.020	0.570	0.004	0.440	8.0	215	0.92	3.3	2.1	1497
mean	0.009	0.002	0.006	0.166	0.002	0.277	6.2	208	0.56	1.1	0.5	479
s.dev.	0.014	0.002	0.005	0.065	0.001	0.038	0.7	3	0.15	0.5	0.4	317
#samples	47	47	47	47	47	47	47	46	47	47	47	35

Plant # 3 - LAMBTON AREA W.S.S. (SARNIA) 1981

	Tot.P	f.r.P	NH3	T.Kjl	NO2	NO3	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
min.	0.003	0.000	0.000	0.017	0.000	0.230	5.0	198	0.34	0.1	0.1	33
max.	0.021	0.007	0.050	0.340	0.020	0.400	15.5	217	0.78	3.0	1.0	883
mean	0.007	0.002	0.006	0.161	0.002	0.282	6.1	208	0.57	1.0	0.4	312
s.dev.	0.004	0.001	0.009	0.040	0.003	0.035	1.6	4	0.11	0.6	0.2	222
#samples	48	49	49	48	49	49	49	49	48	49	46	31

Plant # 1 - GOODRICH A.F.P. 1975

		Tot.P	F.r.P	NH3	T.Kjl	NO2	NO3	Cl	Cond	T.Sil	Chl a	Chl b	Phyto
	NO	0	0	0	0	0	0	0	0	0	0	0	0
JAN	m	-	-	-	-	-	-	-	-	-	-	-	4
	SD	-	-	-	-	-	-	-	-	-	-	-	143
	NO	3	3	3	3	3	3	3	0	3	3	0	101
FEB	m	0.030	0.012	0.063	0.433	0.014	1.390	22.3	-	2.15	0.73	-	3
	SD	0.012	0.003	0.008	0.020	0.003	0.662	4.9	-	0.33	0.12	-	50
	NO	5	5	5	5	5	5	5	0	5	5	5	20
MAR	m	0.051	0.022	0.052	0.49,	0.013	1.252	1.5	-	1.19	1.34	1.1	5
	SD	0.013	0.004	0.009	0.072	0.003	0.393	2.8	-	1.33	0.13	0.7	524
	NO	4	4	4	4	4	4	4	0	4	4	3	227
APR	m	0.035	0.014	0.025	0.601	0.006	0.975	2.1	-	0.33	9.75	3.3	3
	SD	0.002	0.006	0.011	0.336	0.004	0.456	1.9	-	1.13	10.33	4.4	324
	NO	4	4	4	4	4	4	4	0	4	4	0	513
MAY	m	0.041	0.015	0.015	0.413	0.008	0.413	7.5	-	0.55	6.03	-	4
	SD	0.024	0.008	0.015	0.192	0.003	0.344	2.4	-	0.14	4.47	-	513
	NO	4	4	4	4	4	4	4	0	4	4	0	245
JUN	m	0.018	0.003	0.026	0.221	0.002	0.218	5.4	-	1.53	2.15	-	3
	SD	0.003	0.001	0.010	0.029	0.001	0.052	0.3	-	0.24	1.39	-	171
	NO	4	4	4	4	4	4	4	0	4	4	0	253
JUL	m	0.050	0.006	0.021	0.343	0.005	0.143	6.3	-	0.60	5.33	-	3
	SD	0.044	0.004	0.005	0.142	0.002	0.115	1.0	-	0.19	3.42	-	253
	NO	5	5	5	5	5	5	5	0	5	4	0	71
AUG	m	0.032	0.004	0.013	0.260	0.002	0.174	3.3	-	0.91	2.95	-	5
	SD	0.013	0.002	0.003	0.032	0.001	0.015	3.1	-	0.39	1.98	-	1029
	NO	3	3	3	3	3	3	3	0	3	4	1	1423
SEP	m	0.022	0.006	0.017	0.263	0.005	0.183	9.2	-	0.72	1.63	1.0	3
	SD	0.003	0.003	0.003	0.045	0.002	0.021	3.3	-	0.08	0.90	-	173
	NO	4	4	4	4	4	4	4	0	4	4	0	33
OCT	m	0.033	0.004	0.013	0.313	0.005	0.193	10.1	-	0.63	3.13	-	3
	SD	0.027	0.003	0.003	0.095	0.001	0.043	4.0	-	0.12	1.92	-	372
	NO	5	5	5	5	5	5	5	0	5	5	0	159
NOV	m	0.062	0.006	0.017	0.526	0.003	0.360	9.3	-	0.70	3.96	-	4
	SD	0.035	0.002	0.007	0.243	0.001	0.106	2.4	-	0.20	0.79	-	267
	NO	4	4	4	4	4	4	4	0	4	4	0	125
DEC	m	0.027	0.006	0.035	0.280	0.004	0.653	8.3	-	0.70	1.08	-	3
	SD	0.013	0.006	0.043	0.076	0.001	0.105	1.3	-	0.32	0.38	-	266
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PAGE 1 A - [illegible] 1977

		TOT.P	T.K.P	NH3	T.KJL	NO2	NO3	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
	NO	4	4	4	4	4	4	4	0	4	4	1	4
JAN	M	0.012	0.005	0.035	0.204	0.003	0.293	9.1	-	0.73	0.70	0.2	114
	SD	0.005	0.002	0.003	0.059	0.003	0.197	2.3	-	0.09	0.22	-	46
	NO	4	4	4	4	4	4	4	0	4	4	4	2
FEB	M	0.093	0.063	0.310	0.550	0.005	0.455	17.3	-	0.73	0.70	0.6	15
	SD	0.035	0.035	0.224	0.219	0.002	0.093	4.4	-	0.16	0.29	0.3	6
	NO	4	4	4	4	4	4	4	0	4	4	4	3
MAR	M	0.090	0.030	0.091	0.526	0.013	1.850	12.5	-	1.20	1.73	0.7	38
	SD	0.081	0.019	0.059	0.346	0.009	1.474	2.9	-	0.50	2.63	0.9	23
	NO	3	3	3	3	3	3	3	0	3	0	0	3
APR	M	0.060	0.014	0.035	0.468	0.009	1.013	8.3	-	0.73	-	-	143
	SD	0.052	0.012	0.020	0.233	0.005	0.220	1.2	-	0.21	-	-	72
	NO	4	3	3	4	3	3	4	0	4	0	0	4
MAY	M	0.041	0.005	0.037	0.343	0.005	0.620	9.5	-	0.43	-	-	389
	SD	0.044	0.004	0.033	0.201	0.002	0.342	3.1	-	0.03	-	-	189
	NO	3	4	4	4	4	4	4	0	3	0	0	3
JUN	M	0.014	0.005	0.011	0.198	0.002	0.240	6.5	-	0.33	-	-	183
	SD	0.007	0.003	0.005	0.014	0.001	0.034	0.7	-	0.13	-	-	30
	NO	4	4	4	4	4	4	4	0	4	0	0	4
JUL	M	0.062	0.005	0.016	0.450	0.003	0.225	6.4	-	0.31	-	-	756
	SD	0.061	0.004	0.006	0.323	0.001	0.037	1.1	-	0.05	-	-	1053
	NO	3	3	3	3	3	3	3	0	3	0	0	5
AUG	M	0.016	0.003	0.012	0.195	0.002	0.210	6.3	-	0.35	-	-	340
	SD	0.015	0.002	0.003	0.035	0.001	0.010	0.3	-	0.09	-	-	166
	NO	3	3	3	3	3	3	3	4	3	0	0	4
SEP	M	0.027	0.002	0.012	0.227	0.003	0.280	8.3	235	0.47	-	-	540
	SD	0.012	0.001	0.003	0.051	0.000	0.026	4.0	24	0.12	-	-	531
	NO	5	5	5	5	5	5	5	5	5	0	0	5
OCT	M	0.049	0.005	0.010	0.492	0.005	0.625	11.1	339	0.73	-	-	272
	SD	0.034	0.005	0.004	0.236	0.003	0.342	3.5	51	0.37	-	-	81
	NO	4	4	4	4	4	4	4	4	4	4	4	4
NOV	M	0.041	0.008	0.020	0.375	0.004	0.403	7.1	241	0.48	2.83	1.1	404
	SD	0.024	0.001	0.006	0.164	0.001	0.005	1.0	12	0.10	1.13	0.3	278
	NO	3	3	3	3	3	3	3	3	3	3	3	2
DEC	M	0.100	0.011	0.032	0.836	0.008	1.233	10.5	316	0.92	5.50	3.5	540
	SD	0.052	0.002	0.003	0.474	0.002	0.197	1.3	22	0.09	2.59	1.5	57

Plant # 1 - GOODRICH W.P.P. 1973

		Tot.P	F.r.P	NH3	T.Kjl	NO2	NO3	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
	NO	3	3	3	3	3	3	3	3	3	4	4	5
JAN	m	0.026	0.015	0.043	0.283	0.007	0.723	10.5	283	0.73	1.93	1.3	177
	SD	0.005	0.005	0.018	0.038	0.002	0.137	3.1	45	0.08	0.75	1.1	116
	NO	4	4	4	4	4	4	4	4	4	4	4	4
FEB	m	0.019	0.013	0.055	0.339	0.005	0.488	8.3	250	0.74	0.70	0.5	39
	SD	0.012	0.009	0.037	0.207	0.003	0.046	0.9	29	0.08	0.35	0.3	18
	NO	4	4	4	4	4	4	4	4	4	4	4	4
MAR	m	0.018	0.013	0.064	0.296	0.008	1.213	12.9	329	0.85	0.63	0.3	39
	SD	0.014	0.010	0.035	0.161	0.008	1.409	8.1	123	0.40	0.35	0.2	17
	NO	4	4	4	4	4	4	4	4	4	4	4	4
APR	m	0.070	0.023	0.064	0.603	0.015	2.020	12.8	392	1.06	2.23	0.7	393
	SD	0.025	0.009	0.043	0.132	0.004	0.506	2.9	53	0.34	0.71	0.6	553
	NO	3	3	3	3	3	3	3	3	3	3	3	4
MAY	m	0.016	0.003	0.012	0.225	0.004	0.407	7.7	246	0.35	1.77	0.3	566
	SD	0.005	0.002	0.003	0.065	0.001	0.134	2.5	39	0.05	1.03	0.1	310
	NO	4	4	4	4	4	4	4	4	3	4	4	4
JUN	m	0.024	0.027	0.017	0.238	0.004	0.214	6.1	216	0.33	1.83	0.6	471
	SD	0.015	0.049	0.011	0.060	0.003	0.142	0.3	6	0.08	1.02	0.2	180
	NO	4	4	4	4	4	4	4	4	4	4	4	4
JUL	m	0.030	0.003	0.015	0.284	0.003	0.215	6.3	217	0.50	3.98	0.1	1060
	SD	0.031	0.001	0.004	0.151	0.001	0.066	1.3	8	0.10	4.02	0.2	665
	NO	5	5	5	5	5	5	5	5	5	5	5	4
AUG	m	0.019	0.004	0.024	0.268	0.003	0.228	9.9	238	0.54	1.60	0.5	615
	SD	0.006	0.001	0.005	0.105	0.001	0.018	3.2	24	0.07	0.82	0.2	591
	NO	4	4	4	4	4	4	4	4	4	4	4	4
SEP	m	0.008	0.004	0.015	0.199	0.004	0.253	7.8	232	0.65	2.90	0.9	238
	SD	0.003	0.002	0.007	0.025	0.001	0.050	2.3	24	0.11	3.61	0.6	95
	NO	5	5	5	5	5	5	5	5	4	5	5	5
OCT	m	0.027	0.007	0.021	0.277	0.020	0.534	8.6	245	0.52	1.74	0.6	177
	SD	0.019	0.004	0.005	0.139	0.029	0.124	2.0	18	0.32	1.01	0.2	101
	NO	4	4	4	4	4	4	4	4	4	4	4	4
NOV	m	0.037	0.005	0.016	0.294	0.005	0.610	10.6	232	0.81	2.13	0.8	844
	SD	0.024	0.003	0.006	0.110	0.002	0.498	5.6	30	0.34	0.58	0.1	812
	NO	3	2	2	3	2	2	3	3	3	3	3	3
DEC	m	0.051	0.007	0.018	0.397	0.003	0.650	9.0	239	0.64	2.17	1.0	780
	SD	0.025	0.004	0.004	0.160	0.000	0.396	3.8	15	0.17	1.33	0.4	716

Plant # 1 - GODERICH M.T.P. 1979

		Tot.P	F.r.P	NH3	T.Kjl	NO2	NO3	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
	No	5	5	5	5	5	5	5	5	5	3	3	5
JAN	m	0.019	0.006	0.025	0.263	0.003	0.940	12.2	298	1.09	1.07	0.3	130
	SD	0.009	0.002	0.007	0.033	0.001	0.037	2.0	27	0.11	0.35	0.3	63
	No	4	4	4	4	4	4	4	4	4	4	3	4
FEB	m	0.017	0.010	0.045	0.206	0.001	0.513	10.5	258	0.84	0.40	0.4	63
	SD	0.013	0.010	0.042	0.067	0.001	0.067	2.5	14	0.05	0.00	0.2	15
	No	4	4	4	4	4	4	4	4	4	3	3	4
MAR	m	0.042	0.028	0.105	0.424	0.010	2.033	18.1	352	1.33	0.97	0.7	102
	SD	0.010	0.012	0.066	0.067	0.007	1.530	10.0	99	0.51	0.40	0.6	78
	No	4	4	4	4	4	4	4	4	4	4	4	3
APR	m	0.101	0.021	0.035	0.581	0.009	1.398	10.6	313	1.06	2.38	1.7	270
	SD	0.104	0.013	0.020	0.373	0.001	0.390	2.4	41	0.19	1.35	0.9	105
	No	5	5	5	5	5	5	5	5	5	5	5	5
MAY	m	0.060	0.008	0.011	0.334	0.005	0.838	8.8	273	0.54	2.00	0.6	1035
	SD	0.077	0.007	0.005	0.203	0.002	0.423	2.1	51	0.10	0.51	0.2	630
	No	4	4	4	4	4	4	4	4	4	4	4	4
JUN	m	0.030	0.002	0.009	0.215	0.003	0.320	6.9	223	0.42	2.05	0.8	795
	SD	0.020	0.002	0.008	0.068	0.001	0.037	0.9	5	0.05	0.70	0.2	205
	No	5	5	5	5	5	5	5	5	5	5	5	5
JUL	m	0.013	0.001	0.009	0.168	0.002	0.344	6.2	219	0.43	1.14	0.4	192
	SD	0.007	0.000	0.002	0.041	0.001	0.090	1.0	9	0.05	0.75	0.2	111
	No	3	3	3	3	3	3	3	4	3	3	3	4
AUG	m	0.015	0.002	0.013	0.173	0.002	0.230	6.8	217	0.43	2.63	0.8	325
	SD	0.002	0.002	0.003	0.025	0.001	0.010	0.8	2	0.03	1.88	0.3	345
	No	4	4	4	4	4	4	4	4	4	4	4	4
SEP	m	0.010	0.001	0.010	0.190	0.002	0.240	9.3	229	0.55	1.35	0.6	177
	SD	0.010	0.001	0.004	0.045	0.001	0.022	3.9	13	0.12	0.37	0.2	71
	No	5	5	5	5	5	5	5	5	5	5	5	5
OCT	m	0.044	0.004	0.016	0.374	0.007	0.322	10.8	247	0.43	1.92	0.6	199
	SD	0.022	0.002	0.011	0.232	0.010	0.206	4.2	26	0.15	0.97	0.3	57
	No	3	3	3	3	3	3	3	3	3	4	4	4
NOV	m	0.034	0.007	0.020	0.377	0.003	0.597	8.4	248	0.52	1.50	0.8	93
	SD	0.014	0.006	0.003	0.240	0.001	0.256	2.7	33	0.12	0.37	0.4	44
	No	3	3	3	3	3	3	3	3	3	3	3	4
DEC	m	0.068	0.016	0.013	0.510	0.034	2.227	10.2	308	1.14	3.57	1.0	497
	SD	0.045	0.015	0.003	0.322	0.048	1.372	2.4	61	0.56	2.61	0.5	491

Plant # 1 - GODERICH W.P.P. 1980

		Tot.P	F.r.P	NH3	T.Kjl	NO2	NO3	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
JAN	No	5	5	5	5	5	5	5	5	5	5	5	5
	m	0.045	0.011	0.024	0.354	0.004	1.094	8.7	255	0.95	1.64	0.3	115
	SD	0.025	0.002	0.007	0.098	0.001	0.405	2.1	28	0.16	0.56	0.4	74
FEB	No	4	4	4	4	4	4	4	1	4	4	4	4
	m	0.013	0.006	0.029	0.198	0.002	0.605	9.6	261	0.73	0.75	0.3	141
	SD	0.004	0.002	0.014	0.022	0.001	0.170	1.5	15	0.07	0.21	0.1	45
MAR	No	5	5	5	5	5	5	5	5	5	5	5	5
	m	0.049	0.026	0.086	0.452	0.007	1.430	12.4	291	0.93	0.90	0.6	124
	SD	0.064	0.035	0.103	0.406	0.008	1.172	4.5	44	0.40	0.41	0.3	57
APR	No	3	3	3	3	3	3	3	3	3	4	4	4
	m	0.031	0.009	0.023	0.297	0.007	1.377	8.0	274	0.72	2.18	0.9	348
	SD	0.005	0.002	0.013	0.071	0.002	0.399	1.5	45	0.07	1.02	0.3	206
MAY	No	4	4	4	4	4	4	4	4	4	4	4	4
	m	0.014	0.002	0.010	0.223	0.003	0.530	7.4	234	0.35	3.13	0.3	1156
	SD	0.005	0.001	0.000	0.036	0.002	0.264	0.9	16	0.07	0.40	0.5	221
JUN	No	4	4	4	4	4	4	4	4	4	3	3	4
	m	0.024	0.003	0.011	0.213	0.003	0.330	7.3	221	0.31	1.60	0.4	691
	SD	0.021	0.001	0.006	0.036	0.002	0.049	0.5	3	0.03	0.73	0.3	422
JUL	No	5	5	5	5	5	5	5	5	5	5	5	5
	m	0.009	0.002	0.017	0.232	0.002	0.254	7.0	219	0.39	1.36	0.4	408
	SD	0.004	0.001	0.003	0.090	0.000	0.027	1.3	5	0.04	0.75	0.2	415
AUG	No	4	4	4	4	4	4	4	4	4	4	4	4
	m	0.051	0.003	0.003	0.403	0.002	0.253	6.1	212	0.49	3.08	0.3	560
	SD	0.086	0.002	0.003	0.438	0.001	0.030	0.6	1	0.03	3.51	1.0	855
SEP	No	5	5	5	5	5	5	5	5	5	5	5	5
	m	0.025	0.004	0.016	0.253	0.003	0.294	11.3	242	0.67	1.73	0.6	234
	SD	0.012	0.002	0.004	0.030	0.001	0.102	4.2	27	0.15	1.36	0.3	270
OCT	No	4	4	4	4	4	4	4	4	4	4	4	4
	m	0.075	0.005	0.015	0.623	0.004	0.903	14.5	295	0.75	1.70	0.7	249
	SD	0.074	0.002	0.004	0.474	0.001	0.537	1.5	51	0.35	0.71	0.3	43
NOV	No	4	4	4	4	4	4	4	4	4	4	4	4
	m	0.043	0.007	0.009	0.403	0.004	0.393	12.4	230	0.72	0.90	0.6	275
	SD	0.025	0.002	0.005	0.245	0.001	0.185	2.5	29	0.06	0.58	0.1	131
DEC	No	4	4	4	4	4	4	4	1	4	4	4	4
	m	0.046	0.014	0.019	0.283	0.005	0.320	9.6	255	0.35	1.75	0.9	154
	SD	0.022	0.005	0.005	0.072	0.002	0.391	1.3	25	0.16	1.32	0.4	131

Plant # 1 - GODERICH M.E.P. 1981

		Tot.P	F.r.P	NH3	T.Kjl	NO2	NO3	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
	No	4	4	4	4	4	4	4	4	4	4	4	4
JAN	m	0.020	0.003	0.025	0.245	0.002	0.595	9.9	254	0.31	0.50	0.3	37
	SD	0.008	0.004	0.015	0.058	0.001	0.107	0.8	10	0.10	0.12	0.1	22
	No	4	4	4	4	4	4	4	4	4	4	4	4
FEB	m	0.222	0.017	0.018	0.503	0.011	1.330	12.3	298	1.19	1.15	0.5	171
	SD	0.419	0.026	0.016	0.516	0.016	2.416	1.9	40	0.59	0.97	0.1	110
	No	5	5	5	5	5	5	5	5	5	5	5	5
MAR	m	0.024	0.010	0.024	0.312	0.007	1.902	12.2	291	1.00	0.34	0.4	223
	SD	0.013	0.010	0.024	0.137	0.004	1.453	5.0	33	0.50	0.33	0.1	137
	No	4	4	4	4	4	4	4	4	4	4	3	4
APR	m	0.049	0.007	0.009	0.378	0.004	1.133	12.6	298	0.59	1.50	1.0	586
	SD	0.024	0.003	0.005	0.145	0.001	0.341	3.4	37	0.04	0.65	0.6	173
	No	4	4	4	4	4	4	4	4	4	4	4	4
MAY	m	0.048	0.004	0.010	0.390	0.004	1.023	10.8	280	0.49	3.53	1.0	626
	SD	0.045	0.003	0.007	0.240	0.003	0.540	5.0	57	0.07	3.35	0.8	383
	No	5	5	5	5	5	5	5	5	5	5	5	5
JUN	m	0.030	0.001	0.007	0.360	0.001	0.322	6.2	214	0.44	1.22	0.7	456
	SD	0.042	0.001	0.003	0.284	0.001	0.042	0.3	5	0.03	0.54	0.3	290
	No	4	4	4	4	4	4	4	4	4	4	4	4
JUL	m	0.063	0.002	0.014	0.470	0.002	0.350	6.4	217	0.45	1.15	0.7	978
	SD	0.079	0.001	0.006	0.413	0.001	0.154	0.5	6	0.09	0.63	0.3	366
	No	5	5	5	5	5	5	5	5	5	5	5	5
AUG	m	0.013	0.002	0.011	0.202	0.002	0.256	6.7	211	0.53	2.74	0.7	217
	SD	0.011	0.001	0.004	0.045	0.001	0.011	0.8	7	0.11	3.50	0.7	287
	No	3	3	3	3	3	3	3	3	3	3	3	3
SEP	m	0.063	0.002	0.010	0.423	0.002	0.353	8.2	235	0.45	2.90	0.7	1006
	SD	0.073	0.001	0.005	0.331	0.001	0.038	2.3	12	0.39	2.55	0.9	1432
	No	4	4	4	4	4	4	4	4	4	4	4	4
OCT	m	0.035	0.006	0.010	0.420	0.004	1.775	12.5	331	1.04	1.40	0.4	150
	SD	0.027	0.003	0.003	0.150	0.003	1.535	5.5	115	0.47	0.67	0.2	63
	No	4	4	4	4	4	4	4	4	4	3	3	5
NOV	m	0.061	0.006	0.008	0.478	0.004	1.120	12.3	297	0.65	2.77	0.8	249
	SD	0.048	0.001	0.005	0.275	0.002	0.685	4.2	62	0.13	0.51	0.3	137
	No	4	4	4	4	4	4	4	4	4	3	3	4
DEC	m	0.050	0.009	0.010	0.350	0.006	1.075	9.6	275	0.91	0.90	0.5	207
	SD	0.018	0.007	0.008	0.077	0.003	0.386	1.1	24	0.11	0.30	0.3	58

Plant # 2 - LAKE HURON N.S.S. (GRAND BEND) 1975

		Tot.P	F.r.P	NH3	T.Kjl	NO2	NO3	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
JAN	No	0	0	0	0	0	0	0	0	0	0	0	1
	m	-	-	-	-	-	-	-	-	-	-	-	1073
	SD	-	-	-	-	-	-	-	-	-	-	-	479
FEB	No	4	4	4	4	4	4	1	0	4	4	1	4
	m	0.016	0.006	0.006	0.174	0.001	0.263	7.1	-	0.31	0.63	0.4	747
	SD	0.012	0.004	0.003	0.095	0.001	0.105	0.5	-	0.45	0.57	-	265
MAR	No	3	3	3	3	3	3	3	0	3	3	3	4
	m	0.041	0.011	0.010	0.220	0.001	0.333	6.3	-	0.97	0.50	0.3	707
	SD	0.036	0.006	0.005	0.069	0.002	0.216	0.3	-	0.18	0.36	0.1	325
APR	No	5	5	5	5	5	5	5	0	5	5	1	5
	m	0.016	0.008	0.010	0.187	0.001	0.322	6.7	-	0.57	0.42	0.6	1172
	SD	0.004	0.003	0.005	0.029	0.001	0.052	0.6	-	0.11	0.11	-	544
MAY	No	4	4	4	4	4	4	4	0	4	4	0	4
	m	0.037	0.007	0.011	0.263	0.009	0.368	7.1	-	0.90	0.90	-	1725
	SD	0.047	0.004	0.006	0.141	0.003	0.143	0.5	-	0.56	0.37	-	621
JUN	No	5	5	5	5	5	5	5	0	4	5	1	5
	m	0.015	0.004	0.017	0.292	0.001	0.180	6.3	-	0.49	1.90	1.6	2591
	SD	0.005	0.003	0.016	0.092	0.001	0.051	1.0	-	0.25	1.72	-	1029
JUL	No	2	2	3	3	3	3	3	0	2	2	0	4
	m	0.096	0.007	0.065	0.397	0.002	0.163	7.0	-	0.73	1.20	-	635
	SD	0.051	0.008	0.095	0.345	0.003	0.035	0.5	-	0.39	1.13	-	334
AUG	No	4	4	4	4	4	4	4	0	4	5	0	5
	m	0.020	0.003	0.080	0.541	0.003	0.205	6.5	-	0.60	1.56	-	544
	SD	0.014	0.002	0.059	0.267	0.001	0.047	0.0	-	0.28	0.43	-	270
SEP	No	4	4	4	4	4	4	4	0	4	4	0	4
	m	0.014	0.004	0.015	0.231	0.002	0.195	6.3	-	0.79	1.23	-	1042
	SD	0.008	0.002	0.004	0.043	0.002	0.037	0.3	-	0.13	0.46	-	496
OCT	No	4	4	4	4	4	4	4	0	4	4	0	4
	m	0.038	0.005	0.014	0.286	0.002	0.210	6.3	-	0.38	2.68	-	1094
	SD	0.022	0.003	0.003	0.053	0.001	0.033	0.3	-	0.17	1.05	-	314
NOV	No	5	5	5	5	5	5	5	0	5	5	0	5
	m	0.018	0.001	0.009	0.238	0.003	0.230	5.7	-	0.99	2.10	-	986
	SD	0.010	0.001	0.004	0.068	0.000	0.025	0.4	-	1.07	0.32	-	285
DEC	No	4	4	4	4	4	4	4	0	4	4	0	4
	m	0.020	0.004	0.016	0.480	0.003	0.225	6.0	-	0.81	1.88	-	733
	SD	0.009	0.003	0.013	0.363	0.003	0.129	0.7	-	0.56	0.62	-	264

Plant # 2 - LAKE HURON N.S.S. (GRAND BEND) 1977

		Tot.P	F.r.P	NH3	T.Kjl	NO2	NO3	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
JAN	NO	5	5	5	5	5	5	5	0	5	4	0	5
	m	0.012	0.004	0.015	0.287	0.002	0.236	6.9	-	0.64	0.68	-	274
	SD	0.007	0.001	0.012	0.230	0.001	0.029	0.9	-	0.37	0.46	-	189
FEB	NO	4	4	4	4	4	4	4	0	4	4	3	3
	m	0.023	0.007	0.084	0.509	0.003	0.795	7.3	-	0.48	0.63	0.1	16
	SD	0.017	0.004	0.068	0.308	0.001	1.070	0.5	-	0.03	0.22	0.2	6
MAR	NO	4	4	4	4	4	4	4	0	4	4	3	4
	m	0.041	0.009	0.045	0.713	0.005	0.568	9.6	-	0.63	1.08	0.5	251
	SD	0.015	0.008	0.028	0.303	0.003	0.230	5.9	-	0.10	0.62	0.3	237
APR	NO	4	4	4	4	4	4	4	0	4	0	0	4
	m	0.043	0.007	0.028	0.539	0.005	0.573	6.4	-	0.56	-	-	708
	SD	0.010	0.002	0.005	0.035	0.001	0.034	0.3	-	0.08	-	-	338
MAY	NO	5	5	5	5	5	5	5	0	5	0	0	5
	m	0.021	0.006	0.064	0.733	0.004	0.454	7.2	-	0.42	-	-	1428
	SD	0.002	0.004	0.040	0.376	0.002	0.136	0.8	-	0.03	-	-	510
JUN	NO	4	4	4	4	4	4	4	0	4	0	0	4
	m	0.030	0.004	0.033	0.545	0.004	0.270	6.4	-	0.30	-	-	1072
	SD	0.005	0.003	0.028	0.227	0.002	0.029	0.5	-	0.06	-	-	339
JUL	NO	4	4	4	4	4	4	4	0	4	0	0	4
	m	0.023	0.004	0.045	0.791	0.002	0.233	6.1	-	0.34	-	-	485
	SD	0.007	0.001	0.012	0.180	0.001	0.050	0.3	-	0.03	-	-	307
AUG	NO	5	5	5	5	5	5	5	1	5	0	0	5
	m	0.026	0.002	0.022	0.480	0.004	0.230	6.3	223	0.40	-	-	681
	SD	0.016	0.001	0.015	0.348	0.002	0.007	0.3	-	0.09	-	-	484
SEP	NO	4	4	4	4	4	4	4	4	4	0	0	3
	m	0.016	0.004	0.016	0.335	0.003	0.203	5.9	218	0.44	-	-	541
	SD	0.007	0.002	0.011	0.059	0.001	0.010	0.8	10	0.08	-	-	121
OCT	NO	5	5	5	5	5	5	5	5	5	0	0	5
	m	0.029	0.004	0.049	0.391	0.006	0.272	6.0	223	0.54	-	-	698
	SD	0.018	0.003	0.062	0.129	0.003	0.175	0.4	13	0.12	-	-	294
NOV	NO	4	4	4	4	4	4	4	4	4	4	4	4
	m	0.026	0.005	0.045	0.604	0.004	0.280	6.0	214	0.49	2.28	0.7	780
	SD	0.014	0.003	0.026	0.169	0.001	0.061	0.4	4	0.09	0.69	0.5	283
DEC	NO	4	4	4	4	4	4	4	4	4	3	3	4
	m	0.014	0.004	0.048	0.470	0.001	0.915	8.4	209	0.54	2.20	0.9	599
	SD	0.005	0.001	0.028	0.252	0.001	1.257	5.1	5	0.05	1.28	0.2	222

Plant # 2 - LAKE HURON W.S.S. (GRAND BEND) 1978

		Tot.P	F.r.P	NH3	T.Kjl	NO2	NO3	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
JAN	NO	4	4	4	4	4	4	4	4	4	4	4	5
	m	0.026	0.007	0.024	0.403	0.003	0.353	6.1	211	0.54	2.25	0.7	488
	SD	0.011	0.005	0.014	0.101	0.003	0.051	0.5	22	0.06	0.74	0.6	298
FEB	NO	4	4	4	4	4	4	4	4	4	4	4	4
	m	0.011	0.004	0.018	0.210	0.002	0.365	6.1	224	0.59	0.30	0.3	25
	SD	0.004	0.001	0.003	0.063	0.001	0.019	0.3	2	0.03	0.53	0.3	34
MAR	NO	3	3	3	3	3	3	3	3	3	4	3	4
	m	0.030	0.016	0.052	0.317	0.007	0.667	6.7	237	0.60	0.58	0.3	11
	SD	0.034	0.021	0.046	0.149	0.007	0.540	0.8	19	0.17	0.39	0.3	17
APR	NO	4	4	4	4	4	4	4	4	4	4	4	4
	m	0.038	0.013	0.038	0.271	0.008	0.840	6.6	247	0.79	1.90	0.7	473
	SD	0.023	0.012	0.030	0.068	0.005	0.342	0.5	6	0.11	1.03	0.6	360
MAY	NO	5	5	5	5	5	5	5	5	5	5	5	5
	m	0.019	0.003	0.027	0.304	0.007	0.418	6.1	230	0.53	3.52	0.0	1645
	SD	0.018	0.002	0.025	0.102	0.010	0.181	0.7	21	0.12	0.52	0.0	665
JUN	NO	4	4	4	4	4	4	4	4	4	4	4	4
	m	0.008	0.002	0.019	0.233	0.004	0.303	5.5	212	0.36	1.85	0.3	1220
	SD	0.002	0.001	0.005	0.022	0.001	0.050	0.0	2	0.09	1.05	0.3	535
JUL	NO	5	5	5	5	5	5	5	3	5	5	5	5
	m	0.013	0.002	0.017	0.298	0.003	0.244	5.5	211	0.52	2.04	0.3	1254
	SD	0.004	0.001	0.004	0.047	0.001	0.021	0.4	1	0.09	1.26	0.3	767
AUG	NO	4	4	4	4	4	4	4	4	4	4	4	4
	m	0.012	0.002	0.031	0.360	0.003	0.235	5.6	214	0.46	0.65	0.4	196
	SD	0.005	0.001	0.025	0.123	0.001	0.029	0.3	2	0.03	0.17	0.2	112
SEP	NO	4	4	4	4	4	4	4	4	4	3	3	4
	m	0.011	0.003	0.026	0.299	0.004	0.278	5.9	212	0.60	1.27	0.4	331
	SD	0.002	0.001	0.019	0.067	0.001	0.102	0.5	3	0.21	0.92	0.3	338
OCT	NO	5	5	5	5	5	5	5	4	5	5	5	5
	m	0.016	0.004	0.011	0.241	0.003	0.243	5.3	209	0.55	1.80	0.6	943
	SD	0.012	0.002	0.005	0.030	0.001	0.039	0.4	2	0.03	0.59	0.2	225
NOV	NO	4	4	4	4	4	4	4	4	4	3	2	4
	m	0.016	0.002	0.013	0.239	0.003	0.240	5.3	210	0.58	1.60	0.7	1101
	SD	0.010	0.001	0.005	0.057	0.001	0.012	0.5	3	0.02	0.20	0.5	505
DEC	NO	2	2	2	2	2	2	3	0	3	3	3	3
	m	0.015	0.002	0.003	0.243	0.002	0.335	6.3	-	0.68	1.27	0.5	505
	SD	0.004	0.001	0.004	0.067	0.001	0.092	0.6	-	0.07	0.40	0.2	146

Plant # 2 - LAKE HURON U.S.S. (GRAID BEND) 1979

		Tot.P	F.r.P	NH3	T.Kjl	NO2	NO3	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
	No	5	5	5	5	5	5	5	5	5	5	5	5
JAN	m	0.012	0.002	0.003	0.262	0.001	0.383	7.0	223	0.72	2.04	0.7	571
	SD	0.001	0.001	0.003	0.033	0.000	0.095	0.3	8	0.04	0.33	0.3	149
	No	4	4	4	4	4	4	4	4	4	4	4	4
FEB	m	0.008	0.002	0.016	0.220	0.001	0.418	7.4	235	0.76	0.75	0.3	180
	SD	0.001	0.001	0.003	0.020	0.000	0.034	0.5	1	0.04	0.30	0.2	120
	No	4	4	4	4	4	4	4	4	4	4	4	4
MAR	m	0.028	0.005	0.033	0.353	0.004	0.583	6.4	225	0.71	1.18	0.6	379
	SD	0.035	0.005	0.035	0.174	0.005	0.302	0.5	8	0.03	0.35	0.2	156
	No	5	5	5	5	5	5	5	4	5	5	5	3
APR	m	0.040	0.011	0.039	0.272	0.006	0.640	6.5	234	0.73	1.90	1.1	435
	SD	0.031	0.010	0.049	0.039	0.003	0.234	0.4	7	0.03	0.40	1.0	171
	No	4	4	4	4	4	4	4	4	4	4	4	4
MAY	m	0.021	0.004	0.013	0.230	0.004	0.578	5.3	227	0.58	3.15	0.7	331
	SD	0.001	0.002	0.006	0.055	0.002	0.139	0.3	12	0.05	1.34	0.3	173
	No	4	4	4	4	4	4	4	4	4	4	4	4
JUN	m	0.020	0.003	0.013	0.453	0.003	0.370	5.1	221	0.69	5.35	0.9	1714
	SD	0.013	0.002	0.012	0.123	0.001	0.045	0.3	5	0.42	3.49	0.5	924
	No	5	5	5	5	5	5	5	4	5	5	5	4
JUL	m	0.010	0.002	0.013	0.186	0.002	0.300	5.6	213	0.43	1.02	0.5	677
	SD	0.004	0.002	0.012	0.059	0.001	0.014	0.4	2	0.07	0.52	0.4	457
	No	4	4	4	4	4	4	4	4	4	4	3	4
AUG	m	0.011	0.004	0.016	0.240	0.003	0.330	6.1	213	0.49	1.50	0.3	411
	SD	0.004	0.004	0.013	0.064	0.001	0.000	0.3	7	0.03	0.52	0.6	267
	No	4	4	4	4	4	4	4	4	4	4	4	4
SEP	m	0.013	0.000	0.013	0.243	0.002	0.240	6.0	213	0.52	1.25	0.4	490
	SD	0.013	0.001	0.009	0.090	0.001	0.014	0.4	3	0.05	0.39	0.1	129
	No	5	5	5	5	5	5	5	5	5	4	4	5
OCT	m	0.027	0.005	0.012	0.210	0.002	0.224	5.7	211	0.49	1.70	0.3	830
	SD	0.033	0.005	0.006	0.051	0.001	0.015	0.6	4	0.02	0.35	0.0	212
	No	4	4	4	4	4	4	4	3	2	4	4	4
NOV	m	0.010	0.001	0.013	0.243	0.002	0.230	5.5	210	0.50	1.08	0.6	477
	SD	0.003	0.001	0.003	0.013	0.000	0.050	0.4	6	0.00	0.13	0.3	223
	No	4	4	4	4	4	4	4	4	4	4	4	4
DEC	m	0.025	0.002	0.025	0.238	0.002	0.300	5.1	203	0.64	1.98	0.6	702
	SD	0.012	0.001	0.019	0.065	0.001	0.061	0.3	4	0.07	0.62	0.1	93

Appendix IIIb - Cont'd...

Plant # 2 - LAKE HURON n.s.s. (GRAND BEND) 1980

		TOT.P	T.D.P	NH3	T.KJL	NO2	NO3	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
JAN	NO	5	5	5	5	5	5	5	5	5	5	5	1
	m	0.023	0.002	0.015	0.352	0.001	0.462	6.1	216	0.69	1.70	0.3	753
	SD	0.013	0.002	0.004	0.242	0.001	0.252	0.2	0	0.03	0.68	0.2	233
FEB	NO	4	4	4	4	4	4	4	4	4	4	4	1
	m	0.009	0.003	0.021	0.240	0.001	0.333	6.1	215	0.66	1.35	0.4	433
	SD	0.003	0.005	0.003	0.036	0.001	0.057	0.6	3	0.02	0.34	0.1	199
MAR	NO	5	5	5	5	5	5	5	5	5	5	5	5
	m	0.017	0.003	0.010	0.300	0.002	0.454	5.9	212	0.68	1.05	0.5	432
	SD	0.010	0.003	0.011	0.079	0.002	0.198	0.4	3	0.04	0.30	0.1	169
APR	NO	4	4	4	4	4	4	4	0	4	4	4	4
	m	0.021	0.002	0.019	0.230	0.003	0.935	6.5	-	0.70	1.60	0.6	557
	SD	0.009	0.001	0.017	0.072	0.001	0.573	0.4	-	0.07	0.45	0.2	396
MAY	NO	4	4	4	4	4	4	4	0	4	4	4	4
	m	0.018	0.002	0.028	0.308	0.004	0.645	7.1	-	0.45	3.95	0.4	770
	SD	0.005	0.001	0.032	0.103	0.001	0.156	0.3	-	0.07	1.25	0.3	397
JUN	NO	4	4	4	4	4	4	4	0	4	3	3	4
	m	0.014	0.001	0.009	0.278	0.003	0.105	5.3	-	0.39	3.50	0.3	1515
	SD	0.004	0.001	0.003	0.070	0.001	0.065	0.6	-	0.18	0.78	0.2	674
JUL	NO	4	4	4	4	4	4	4	0	4	4	4	5
	m	0.021	0.002	0.036	0.448	0.002	0.298	5.3	-	0.33	2.73	0.3	913
	SD	0.009	0.001	0.014	0.240	0.001	0.059	0.3	-	0.07	2.05	0.2	500
AUG	NO	4	4	4	4	4	4	4	1	4	4	4	4
	m	0.012	0.001	0.013	0.310	0.002	0.245	6.3	222	0.47	1.30	0.4	901
	SD	0.002	0.001	0.010	0.053	0.001	0.026	0.5	-	0.03	0.50	0.2	483
SEP	NO	4	4	4	4	4	4	4	4	4	4	3	4
	m	0.014	0.001	0.013	0.285	0.002	0.225	7.1	214	0.60	1.25	0.3	559
	SD	0.006	0.001	0.009	0.031	0.000	0.010	1.4	4	0.09	0.50	0.2	274
OCT	NO	4	4	4	4	4	4	4	4	4	4	4	4
	m	0.023	0.003	0.011	0.303	0.002	0.273	6.6	212	0.64	1.53	0.7	529
	SD	0.010	0.001	0.005	0.068	0.001	0.033	0.9	2	0.06	1.17	0.5	254
NOV	NO	3	3	3	3	3	3	3	3	3	3	3	3
	m	0.016	0.002	0.017	0.333	0.002	0.313	7.7	217	0.55	0.97	0.4	421
	SD	0.004	0.001	0.003	0.076	0.001	0.032	1.3	6	0.20	0.12	0.3	136
DEC	NO	5	5	5	5	5	5	5	5	5	5	5	3
	m	0.031	0.007	0.024	0.308	0.003	0.412	7.5	222	0.71	2.06	1.1	453
	SD	0.013	0.004	0.027	0.056	0.002	0.151	1.2	15	0.09	1.18	1.1	188

Appendix IIIb - Cont'd...

Plant # 2 - LAKE HURON N.S.S. (GRAND BEND) 1981

		Tot.P	F.R.P	NH3	T.Kjl	NO2	NO3	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
JAN	No	4	4	4	4	4	4	4	4	4	4	4	3
	m	0.015	0.003	0.029	0.355	0.001	0.373	7.0	219	0.70	0.68	0.4	307
	SD	0.005	0.001	0.008	0.167	0.001	0.051	0.7	5	0.04	0.31	0.1	78
FEB	No	4	4	4	4	4	4	4	4	4	4	4	4
	m	0.026	0.012	0.005	0.253	0.001	0.330	6.3	213	0.67	1.25	0.3	335
	SD	0.021	0.012	0.007	0.031	0.001	0.030	1.2	5	0.01	0.40	0.1	58
MAR	No	4	4	4	4	4	4	4	4	4	5	5	5
	m	0.032	0.007	0.015	0.333	0.005	1.245	6.3	231	0.79	0.98	0.3	553
	SD	0.025	0.010	0.014	0.160	0.007	1.637	1.2	37	0.33	0.19	0.0	223
APR	No	4	4	4	4	4	4	4	4	4	4	4	4
	m	0.024	0.003	0.013	0.308	0.002	0.378	6.0	216	0.57	2.18	0.3	1034
	SD	0.011	0.001	0.010	0.053	0.001	0.142	0.6	8	0.07	1.48	0.6	404
MAY	No	4	4	4	4	4	4	4	4	4	4	4	4
	m	0.016	0.002	0.005	0.258	0.003	0.565	6.9	231	0.41	1.53	0.4	324
	SD	0.002	0.001	0.004	0.051	0.001	0.188	1.0	8	0.09	0.39	0.2	355
JUN	No	5	5	5	5	5	5	5	5	5	5	5	4
	m	0.018	0.001	0.016	0.338	0.002	0.346	6.1	213	0.56	2.48	0.6	1336
	SD	0.007	0.001	0.012	0.129	0.001	0.034	0.5	6	0.18	1.33	0.2	524
JUL	No	4	4	4	4	4	4	4	4	4	4	4	4
	m	0.011	0.001	0.014	0.258	0.002	0.293	5.6	220	0.39	0.80	0.3	554
	SD	0.006	0.001	0.008	0.034	0.001	0.026	0.3	11	0.03	0.55	0.2	556
AUG	No	4	4	4	4	4	4	4	3	4	4	4	4
	m	0.011	0.003	0.056	0.453	0.003	0.260	5.9	212	0.43	0.43	0.2	439
	SD	0.002	0.001	0.039	0.157	0.001	0.008	0.3	1	0.03	0.17	0.0	262
SEP	No	3	3	3	3	3	3	3	3	3	4	4	4
	m	0.023	0.005	0.022	0.380	0.004	0.447	6.0	222	0.63	1.53	0.3	515
	SD	0.012	0.002	0.003	0.140	0.001	0.086	0.0	2	0.03	0.85	0.1	386
OCT	No	4	4	4	4	4	4	4	4	4	4	4	3
	m	0.042	0.009	0.023	0.530	0.004	0.398	6.5	222	0.67	1.40	0.3	158
	SD	0.023	0.004	0.006	0.062	0.001	0.054	1.0	10	0.03	1.29	0.1	74
NOV	No	5	5	5	5	5	5	5	5	5	5	5	4
	m	0.023	0.006	0.021	0.316	0.003	0.432	6.2	223	0.63	1.52	0.4	307
	SD	0.009	0.002	0.013	0.059	0.001	0.193	0.4	14	0.05	0.52	0.1	127
DEC	No	3	3	3	3	3	3	3	3	3	2	2	3
	m	0.017	0.003	0.033	0.230	0.002	0.357	6.2	209	0.64	0.95	0.4	393
	SD	0.005	0.003	0.020	0.020	0.001	0.086	0.3	10	0.04	0.49	0.3	241

Plant # 3 - LAGUNA AREA W.S.S. (SARNIA) 1975

		Dst.P	F.E.P	Jn3	F.Kjl	N02	N03	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
JAN	NO	0	0	0	0	0	0	0	0	0	0	0	0
	m	-	-	-	-	-	-	-	-	-	-	-	-
	SD	-	-	-	-	-	-	-	-	-	-	-	-
FEB	NO	3	3	3	3	3	3	3	0	3	3	1	0
	m	0.005	0.003	0.007	0.107	0.002	0.253	6.0	-	0.67	0.30	0.1	-
	SD	0.004	0.003	0.003	0.043	0.001	0.025	0.9	-	0.16	0.62	-	-
MAR	NO	5	5	5	5	5	5	5	0	5	5	4	2
	m	0.012	0.006	0.006	0.200	0.002	0.340	5.7	-	0.35	1.30	0.7	194
	SD	0.006	0.002	0.002	0.067	0.002	0.230	0.5	-	0.15	0.78	0.3	2
APR	NO	4	4	4	4	4	4	4	0	4	2	1	4
	m	0.016	0.005	0.008	0.216	0.003	0.245	5.6	-	0.60	1.90	0.7	319
	SD	0.017	0.004	0.005	0.070	0.001	0.019	0.3	-	0.23	1.13	-	31
MAY	NO	4	4	4	4	4	4	4	0	4	5	0	3
	m	0.009	0.006	0.006	0.183	0.015	0.210	5.1	-	0.41	2.38	-	576
	SD	0.003	0.003	0.003	0.026	0.016	0.054	0.3	-	0.09	0.93	-	316
JUN	NO	4	4	4	4	4	4	4	0	4	4	0	4
	m	0.007	0.002	0.045	0.198	0.003	0.203	6.0	-	0.41	2.25	-	456
	SD	0.001	0.001	0.070	0.054	0.001	0.052	0.7	-	0.09	0.39	-	115
JUL	NO	4	4	4	4	4	4	4	0	4	4	0	3
	m	0.023	0.004	0.013	0.195	0.003	0.160	5.3	-	0.39	0.50	-	223
	SD	0.013	0.003	0.009	0.033	0.001	0.041	0.3	-	0.14	0.24	-	133
AUG	NO	5	5	5	5	5	5	5	0	5	4	0	4
	m	0.029	0.005	0.015	0.193	0.003	0.148	5.4	-	0.54	1.15	-	149
	SD	0.047	0.003	0.017	0.034	0.001	0.037	0.4	-	0.24	0.19	-	74
SEP	NO	4	4	4	4	4	4	4	0	4	4	0	2
	m	0.014	0.004	0.011	0.200	0.003	0.168	5.1	-	0.46	0.33	-	115
	SD	0.011	0.002	0.005	0.011	0.001	0.013	0.3	-	0.13	0.25	-	64
OCT	NO	3	3	3	3	3	3	3	0	3	3	0	1
	m	0.006	0.004	0.012	0.183	0.003	0.177	6.0	-	0.40	1.27	-	179
	SD	0.002	0.001	0.003	0.020	0.002	0.021	0.5	-	0.05	0.35	-	-
NOV	NO	3	3	3	3	3	3	3	1	3	3	0	2
	m	0.010	0.002	0.007	0.203	0.003	0.213	5.4	210	0.35	1.73	-	134
	SD	0.007	0.001	0.003	0.023	0.002	0.030	0.4	-	0.09	0.32	-	6
DEC	NO	1	1	1	1	1	1	1	0	1	1	0	2
	m	0.009	0.003	0.010	0.225	0.001	0.250	5.5	-	0.50	1.30	-	325
	SD	-	-	-	-	-	-	-	-	-	-	-	126

Plant # 3 - [illegible] (GAMMA) 1977

		Tot.P	F.r.P	A13	F.A11	A32	A33	Cl	Con3	0.3id	Chl a	Chl b	Phyto
	NO	2	2	2	2	2	2	2	0	2	2	0	1
JAN	m	0.011	0.005	0.005	0.143	0.002	0.225	6.0	-	0.70	1.50	-	732
	SD	0.003	0.004	0.000	0.018	0.001	0.021	0.7	-	0.14	0.00	-	133
	NO	3	3	3	3	3	3	3	0	3	3	2	2
FEB	m	0.008	0.005	0.007	0.135	0.001	0.253	6.2	-	0.65	1.47	0.3	745
	SD	0.003	0.003	0.003	0.035	0.001	0.015	0.6	-	0.10	0.38	0.4	361
	NO	4	4	4	4	4	4	4	0	1	4	3	1
MAR	m	0.009	0.002	0.006	0.153	0.002	0.275	5.9	-	0.61	0.38	0.5	1256
	SD	0.009	0.002	0.001	0.006	0.001	0.073	0.2	-	0.10	0.30	0.2	-
	NO	4	4	4	4	4	4	4	3	4	0	0	1
APR	m	0.006	0.002	0.007	0.195	0.002	0.281	5.9	211	0.60	-	-	377
	SD	0.001	0.001	0.002	0.043	0.001	0.019	0.1	5	0.00	-	-	211
	NO	4	5	5	4	5	5	5	1	5	0	0	4
MAY	m	0.009	0.004	0.017	0.194	0.003	0.281	5.8	220	0.50	-	-	1247
	SD	0.003	0.002	0.020	0.035	0.001	0.022	0.7	-	0.25	-	-	927
	NO	3	4	4	3	4	4	4	2	4	0	0	2
JUN	m	0.010	0.007	0.012	0.193	0.003	0.257	5.8	213	0.35	-	-	1103
	SD	0.011	0.008	0.005	0.042	0.001	0.023	0.2	4	0.04	-	-	722
	NO	4	4	4	4	4	4	4	2	4	0	0	3
JUL	m	0.005	0.002	0.011	0.166	0.003	0.245	5.8	210	0.34	-	-	674
	SD	0.003	0.002	0.005	0.032	0.001	0.011	0.2	0	0.03	-	-	247
	NO	5	5	5	5	5	5	5	0	5	0	0	2
AUG	m	0.012	0.002	0.006	0.158	0.002	0.213	5.9	-	0.39	-	-	524
	SD	0.016	0.001	0.005	0.003	0.001	0.020	0.2	-	0.04	-	-	59
	NO	4	4	4	4	4	4	4	0	3	0	0	3
SEP	m	0.007	0.002	0.010	0.208	0.003	0.225	5.4	-	0.45	-	-	492
	SD	0.005	0.001	0.006	0.158	0.001	0.024	0.3	-	0.05	-	-	145
	NO	5	5	5	5	5	5	5	2	5	0	0	3
OCT	m	0.003	0.004	0.015	0.160	0.004	0.230	5.7	206	0.46	-	-	778
	SD	0.007	0.003	0.004	0.042	0.001	0.015	0.3	1	0.04	-	-	278
	NO	3	3	3	3	3	3	3	0	3	4	4	2
NOV	m	0.005	0.001	0.008	0.153	0.003	0.247	5.7	-	0.43	1.55	0.6	1213
	SD	0.002	0.001	0.005	0.015	0.001	0.015	0.3	-	0.10	0.21	0.4	1191
	NO	4	4	4	4	4	4	4	4	4	3	3	3
DEC	m	0.012	0.003	0.011	0.161	0.001	0.233	5.8	198	0.59	3.27	1.3	410
	SD	0.010	0.001	0.005	0.043	0.001	0.026	0.6	10	0.05	2.49	1.0	147

Plant # 3 - LAMBTON AREA W.S.S. (SARNIA) 1973

		Tot.P	F.r.P	NH3	T.Kjl	NO2	NO3	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
	No	4	4	4	4	4	4	4	3	4	5	5	4
JAN	m	0.006	0.002	0.014	0.166	0.001	0.295	5.9	215	0.49	1.12	0.3	163
	SD	0.003	0.001	0.003	0.029	0.001	0.047	0.3	10	0.03	0.33	0.2	52
	No	3	3	3	3	3	3	2	3	2	4	4	2
FEB	m	0.004	0.004	0.017	0.133	0.001	0.290	5.5	215	0.50	0.73	0.3	243
	SD	0.002	0.002	0.003	0.010	0.000	0.000	0.7	8	0.00	0.29	0.1	122
	No	3	3	3	3	3	3	3	3	3	4	4	2
MAR	m	0.005	0.004	0.012	0.152	0.001	0.247	5.5	211	0.53	0.90	0.4	129
	SD	0.003	0.003	0.006	0.012	0.002	0.032	0.0	5	0.03	0.42	0.3	35
	No	4	4	4	4	4	4	4	4	4	4	4	3
APR	m	0.009	0.005	0.014	0.154	0.004	0.300	5.6	208	0.60	0.95	0.6	248
	SD	0.009	0.002	0.003	0.078	0.003	0.030	0.3	4	0.08	0.31	0.3	196
	No	5	5	5	5	5	5	5	5	5	5	5	5
MAY	m	0.004	0.002	0.007	0.166	0.003	0.238	5.6	210	0.49	1.40	0.3	950
	SD	0.001	0.001	0.006	0.021	0.000	0.032	0.5	6	0.10	0.63	0.1	968
	No	3	3	3	3	3	3	3	3	3	3	3	4
JUN	m	0.018	0.001	0.012	0.190	0.003	0.297	5.3	215	0.40	1.57	0.4	1132
	SD	0.020	0.001	0.003	0.017	0.001	0.055	0.3	5	0.05	0.15	0.1	471
	No	5	5	5	5	5	5	5	5	5	4	4	5
JUL	m	0.004	0.003	0.014	0.161	0.003	0.274	5.6	216	0.45	0.65	0.4	347
	SD	0.002	0.001	0.009	0.011	0.001	0.053	0.2	5	0.04	0.19	0.1	285
	No	4	4	4	4	4	4	4	4	4	4	4	4
AUG	m	0.006	0.002	0.011	0.166	0.004	0.245	5.5	212	0.46	0.68	0.5	256
	SD	0.003	0.001	0.005	0.017	0.001	0.024	0.0	4	0.03	0.13	0.2	126
	No	4	4	4	4	4	4	4	4	4	4	4	3
SEP	m	0.005	0.002	0.015	0.175	0.003	0.228	5.4	209	0.56	0.90	0.5	133
	SD	0.002	0.001	0.008	0.018	0.001	0.021	0.3	2	0.10	0.24	0.2	57
	No	5	5	5	5	5	5	5	5	5	3	3	5
OCT	m	0.010	0.003	0.013	0.174	0.004	0.218	5.3	212	0.54	1.10	0.5	372
	SD	0.006	0.001	0.003	0.033	0.001	0.020	0.3	14	0.04	0.20	0.2	87
	No	4	4	4	4	4	4	4	4	4	4	4	4
NOV	m	0.010	0.003	0.009	0.144	0.003	0.225	7.0	205	0.56	0.75	0.5	570
	SD	0.009	0.001	0.005	0.026	0.002	0.019	2.4	5	0.13	0.39	0.3	369
	No	4	4	4	4	4	4	4	4	4	4	4	4
DEC	m	0.006	0.002	0.004	0.145	0.001	0.260	6.3	199	0.63	1.05	0.6	405
	SD	0.004	0.001	0.003	0.012	0.001	0.016	1.2	3	0.07	0.29	0.1	105

Appendix IIIc - Cont'd...

Plant # 3 - LAMBTON AREA W.S.S. (SARNIA), 1979

		Tot.P	F.r.P	NH3	T.Kjl	NO2	NO3	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
	NO	4	4	4	4	4	4	4	4	4	4	4	3
JAN	m	0.009	0.003	0.009	0.136	0.001	0.273	6.5	216	0.62	1.25	0.3	510
	SD	0.004	0.001	0.005	0.014	0.001	0.022	0.4	1	0.04	0.26	0.3	47
	NO	4	4	4	4	4	4	4	4	4	4	4	3
FEB	m	0.005	0.001	0.005	0.160	0.001	0.308	6.1	216	0.63	0.75	0.4	415
	SD	0.003	0.001	0.000	0.008	0.001	0.057	0.5	5	0.05	0.24	0.3	30
	NO	4	4	4	4	4	4	4	4	4	4	4	2
MAR	m	0.011	0.005	0.006	0.144	0.002	0.300	6.3	212	0.65	0.38	0.5	437
	SD	0.002	0.004	0.003	0.024	0.001	0.008	0.5	3	0.05	0.17	0.1	305
	NO	5	5	5	5	5	5	5	5	5	5	5	3
APR	m	0.009	0.002	0.007	0.175	0.002	0.308	5.6	211	0.59	1.40	0.6	445
	SD	0.006	0.001	0.003	0.043	0.000	0.037	0.2	1	0.07	1.11	0.4	202
	NO	4	4	4	4	4	4	4	4	4	3	3	3
MAY	m	0.005	0.001	0.006	0.200	0.003	0.393	5.6	215	0.57	1.07	0.5	563
	SD	0.006	0.001	0.003	0.028	0.001	0.034	0.3	7	0.09	0.29	0.2	318
	NO	4	4	4	4	4	4	4	4	4	4	4	3
JUN	m	0.007	0.001	0.004	0.148	0.003	0.343	5.4	211	0.50	1.93	0.7	1020
	SD	0.007	0.001	0.003	0.035	0.000	0.078	0.5	3	0.05	0.36	0.4	255
	NO	5	5	5	5	5	5	5	5	5	5	5	4
JUL	m	0.006	0.005	0.008	0.154	0.003	0.292	5.5	212	0.37	0.64	0.3	662
	SD	0.004	0.009	0.003	0.029	0.001	0.026	0.4	6	0.02	0.15	0.2	320
	NO	3	3	3	3	3	3	3	3	3	3	3	3
AUG	m	0.004	0.001	0.007	0.140	0.003	0.270	6.3	212	0.43	0.60	0.3	382
	SD	0.002	0.001	0.003	0.030	0.001	0.017	0.6	3	0.03	0.10	0.2	137
	NO	4	4	4	4	4	4	4	4	4	4	4	3
SEP	m	0.004	0.002	0.006	0.145	0.003	0.263	7.3	212	0.50	0.90	0.5	458
	SD	0.002	0.001	0.006	0.021	0.002	0.068	2.5	1	0.03	0.29	0.2	220
	NO	5	5	5	5	5	5	5	5	5	5	5	5
OCT	m	0.008	0.001	0.008	0.172	0.003	0.223	5.4	211	0.49	1.01	0.3	394
	SD	0.004	0.001	0.004	0.043	0.000	0.033	0.4	5	0.04	0.34	0.1	130
	NO	4	4	4	4	4	4	4	4	4	4	4	1
NOV	m	0.016	0.001	0.006	0.133	0.003	0.243	6.0	205	0.53	0.90	0.5	452
	SD	0.029	0.001	0.003	0.109	0.001	0.022	1.4	3	0.01	0.03	0.2	-
	NO	3	3	3	3	3	3	3	3	3	2	2	3
DEC	m	0.012	0.002	0.008	0.193	0.001	0.317	5.2	204	0.66	1.30	0.7	351
	SD	0.004	0.001	0.005	0.021	0.001	0.004	0.3	3	0.03	0.14	0.1	30

Appendix IIIc - Cont'd...

Plant # 3 - LAMBTON AREA W.S.S. (SARNIA) 1988

		Tot.P	F.r.P	NH3	T.Kjl	NO2	NO3	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
	NO	3	3	3	3	3	3	3	3	3	3	3	4
JAN	m	0.004	0.001	0.007	0.137	0.001	0.230	5.3	208	0.68	1.07	0.3	442
	SD	0.002	0.001	0.012	0.012	0.001	0.000	0.5	1	0.02	0.21	0.1	156
	NO	2	2	2	2	2	2	2	2	2	3	3	2
FEB	m	0.005	0.001	0.005	0.145	0.003	0.235	5.8	209	0.67	0.33	0.2	375
	SD	0.004	0.001	0.000	0.007	0.000	0.007	0.4	3	0.04	0.29	0.2	125
	NO	4	4	4	4	4	4	4	4	4	3	3	0
MAR	m	0.004	0.001	0.004	0.133	0.001	0.293	5.6	210	0.70	0.93	0.4	-
	SD	0.002	0.001	0.003	0.022	0.001	0.010	0.3	3	0.01	0.40	0.1	-
	NO	4	4	4	4	4	4	4	4	4	4	4	3
APR	m	0.007	0.002	0.005	0.143	0.002	0.293	5.5	205	0.67	1.15	0.6	609
	SD	0.004	0.001	0.004	0.039	0.001	0.017	0.5	1	0.03	0.39	0.3	252
	NO	4	4	4	4	4	4	4	4	4	4	4	3
MAY	m	0.003	0.002	0.011	0.140	0.002	0.325	5.9	200	0.57	0.93	0.3	570
	SD	0.001	0.001	0.006	0.027	0.001	0.079	0.3	2	0.04	0.25	0.1	143
	NO	5	5	5	5	5	5	5	5	5	5	5	4
JUN	m	0.011	0.002	0.008	0.162	0.002	0.233	6.1	203	0.46	1.16	0.4	1140
	SD	0.011	0.001	0.004	0.031	0.001	0.024	0.7	2	0.29	0.48	0.1	358
	NO	4	4	4	4	4	4	4	4	4	4	4	3
JUL	m	0.005	0.002	0.013	0.163	0.002	0.300	6.8	211	0.33	0.70	0.5	247
	SD	0.001	0.001	0.003	0.005	0.001	0.040	0.3	3	0.02	0.27	0.2	144
	NO	4	4	4	4	4	4	4	3	4	3	3	3
AUG	m	0.007	0.002	0.006	0.178	0.002	0.245	6.1	210	0.39	0.73	0.3	173
	SD	0.003	0.001	0.003	0.031	0.000	0.013	0.6	2	0.03	0.06	0.1	78
	NO	5	5	5	5	5	5	5	5	5	5	5	4
SEP	m	0.007	0.001	0.002	0.160	0.002	0.244	6.9	209	0.53	1.50	0.7	451
	SD	0.002	0.000	0.003	0.012	0.000	0.037	0.8	5	0.05	1.11	0.5	109
	NO	3	3	3	3	3	3	3	3	3	4	4	3
OCT	m	0.004	0.001	0.005	0.153	0.002	0.240	5.0	205	0.57	1.00	0.5	271
	SD	0.001	0.001	0.000	0.012	0.000	0.000	0.5	2	0.03	0.24	0.2	69
	NO	4	4	4	4	4	4	4	4	4	4	4	2
NOV	m	0.007	0.001	0.004	0.165	0.003	0.263	6.5	205	0.60	0.93	0.5	286
	SD	0.003	0.000	0.003	0.024	0.001	0.025	1.0	4	0.03	0.26	0.2	29
	NO	5	5	5	5	5	5	5	5	5	5	5	4
DEC	m	0.031	0.003	0.006	0.262	0.002	0.264	6.4	205	0.69	1.70	0.9	414
	SD	0.037	0.004	0.002	0.172	0.001	0.019	0.5	3	0.06	0.58	0.7	175

Plant # 3 - LARSEN AREA N.S.S. (SARSIA) 1981

		Tot.P	F.r.P	NO3	T.Kjl	NO2	NO3	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
JAN	No	3	4	4	3	4	4	4	4	3	4	4	2
	m	0.009	0.004	0.005	0.123	0.001	0.293	6.5	207	0.71	0.93	0.3	167
	SD	0.003	0.002	0.004	0.098	0.001	0.025	0.8	5	0.03	0.24	0.1	13
FEB	No	3	3	3	3	3	3	3	3	3	3	3	3
	m	0.010	0.001	0.003	0.160	0.000	0.270	8.3	209	0.65	1.00	0.3	298
	SD	0.009	0.001	0.003	0.035	0.001	0.010	5.8	4	0.05	0.26	0.1	59
MAR	No	5	5	5	5	5	5	5	5	5	5	5	5
	m	0.003	0.002	0.011	0.158	0.001	0.296	5.4	208	0.65	0.84	0.5	436
	SD	0.004	0.001	0.014	0.008	0.001	0.018	0.4	5	0.05	0.25	0.1	204
APR	No	4	4	4	4	4	4	4	4	4	4	3	2
	m	0.007	0.001	0.005	0.143	0.006	0.293	5.3	210	0.70	0.65	0.4	276
	SD	0.004	0.001	0.004	0.034	0.010	0.025	0.5	5	0.06	0.41	0.3	69
MAY	No	4	4	4	4	4	4	4	4	4	4	4	1
	m	0.010	0.001	0.001	0.213	0.002	0.313	6.9	214	0.54	1.73	0.4	576
	SD	0.007	0.001	0.003	0.036	0.000	0.029	1.5	3	0.15	0.98	0.2	-
JUN	No	3	3	3	3	3	3	3	3	3	3	2	3
	m	0.006	0.002	0.003	0.153	0.002	0.307	6.2	212	0.43	0.57	0.4	178
	SD	0.001	0.001	0.003	0.021	0.002	0.012	1.3	4	0.06	0.25	0.1	44
JUL	No	4	4	4	4	4	4	4	4	4	4	3	1
	m	0.005	0.001	0.009	0.158	0.003	0.295	6.0	209	0.39	0.45	0.3	67
	SD	0.002	0.001	0.005	0.024	0.001	0.057	0.7	2	0.04	0.30	0.0	28
AUG	No	5	5	5	5	5	5	5	5	5	5	5	2
	m	0.006	0.002	0.005	0.158	0.002	0.262	6.2	209	0.43	0.32	0.3	55
	SD	0.002	0.001	0.011	0.022	0.001	0.008	0.3	1	0.02	0.34	0.1	4
SEP	No	4	4	4	4	4	4	4	4	4	4	4	2
	m	0.005	0.002	0.016	0.160	0.002	0.240	5.6	207	0.50	1.28	0.7	234
	SD	0.001	0.001	0.023	0.024	0.001	0.008	0.3	2	0.02	0.34	0.4	212
OCT	No	4	4	4	4	4	4	4	4	4	4	4	2
	m	0.009	0.004	0.006	0.170	0.002	0.293	5.6	208	0.58	0.93	0.4	716
	SD	0.005	0.002	0.003	0.022	0.001	0.072	0.3	5	0.05	0.53	0.2	237
NOV	No	5	5	5	5	5	5	5	5	5	5	5	2
	m	0.007	0.002	0.003	0.170	0.002	0.272	5.3	206	0.60	1.18	0.4	310
	SD	0.003	0.001	0.003	0.020	0.001	0.033	0.3	2	0.03	0.59	0.1	25
DEC	No	4	4	4	4	4	4	4	4	4	4	4	3
	m	0.007	0.001	0.003	0.150	0.002	0.255	5.8	202	0.64	1.03	0.3	539
	SD	0.001	0.001	0.003	0.014	0.002	0.006	0.3	3	0.05	0.25	0.1	212